

| BK | NUM | ANS | QUESTION   | ANSWER A  | ANSWER B   | ANSWER C   | ANSWER D   | ILLUST |
|----|-----|-----|--|---|--|--|--|--------|
| 4  | 407 | A   | Any person maintaining a listening watch on a bridge-to-bridge radiotelephone must be able to _____.   | speak English   | repair the unit  | send Morse Code  | speak a language the vessel's crew will understand                   |        |
| 4  | 408 | C   | If a person is unconscious from electric shock, you should first remove him from the electrical source and then _____.   | administer ammonia smelling salts   | check for serious burns on the body  | determine if he is breathing   | massage vigorously to restore circulation                            |        |
| 4  | 409 | A   | What is the reduction in metacentric height due to free surface when a tank 60 feet long and 30 feet wide is partially filled with salt water, and is fitted with a centerline bulkhead? (The vessel has a displacement of 10,000 tons.) | 0.1 foot  | 0.8 foot   | 1.0 foot   | 1.2 feet   |        |
| 4  | 410 | B   | The effect of free surface on initial stability depends upon _____.  | the amount of liquid in the compartment                                   | the dimensions of the liquid surface and the vessel's displacement           | only the length of the compartment                                     | the vertical position of the liquid in the vessel                    |        |
| 4  | 411 | A   | Under Annex V to MARPOL 73/78, garbage discharged from vessels that are located between 3 and 12 nautical miles from nearest land must be ground to less than _____.   | 1"  | 1-1/4"   | 1-1/2"   | 2"   |        |
| 4  | 412 | B   | To get low-velocity fog from an all-purpose nozzle, you would _____.   | attach the bronze nozzle tip to the fog outlet of the nozzle              | attach an applicator to the nozzle in place of the bronze nozzle tip         | attach an applicator to the solid stream outlet on the nozzle          | simply move the handle to the vertical position on the nozzle        |        |
| 4  | 413 | A   | Paint and oil lockers on small passenger vessels must be constructed of or lined with _____.   | steel or equivalent material  | fiberglass   | sheetrock, asbestos, or other material that retards the spread of fire | marine plywood   |        |
| 4  | 414 | B   | A vessel in distress should send by radio telephone the two tone alarm signal followed immediately by the _____.   | distress position   | spoken words "Mayday, Mayday, Mayday"  | ship's name  | ship's call letters  |        |
| 4  | 415 | B   | What must ocean going vessels of 100 GT to 400 GT be fitted with for oily mixtures?  | A fixed system to discharge the slops overboard                           | A fixed system to discharge oily mixtures to a reception facility            | A portable system to discharge the slops overboard                     | A portable system to discharge oily mixtures to a reception facility |        |
| 4  | 416 | B   | Under the regulations for cargo vessels, which statement is TRUE concerning fireman's outfits?   | If a vessel carries two outfits, they may be stored in the same location. | Each fireman's outfit shall contain a flame safety lamp of an approved type. | Each fireman's outfit shall contain a fresh-air breathing apparatus.   | All of the above   |        |

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| 4 | 418 | A | Treatment(s) of heat exhaustion consist(s) of _____.   | moving to a shaded area and laying down                           | bathing with rubbing alcohol   | placing the patient in a tub of cold water          | All of the above   |         |
| 4 | 419 | A | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.                 | FWD 23'-03", AFT 27'-00"  | FWD 23'-07", AFT 26'-07"   | FWD 24'-01", AFT 26'-02"                            | FWD 24'-06", AFT 25'-10"   | ST-0006 |
| 4 | 420 | D | The most important figure in calculating the free surface constant of a tank carrying liquids is _____.  | depth   | length   | displacement  | breadth  |         |
| 4 | 421 | C | After the initial AMVER Position Report, sent by a vessel sailing foreign, subsequent Position Reports must be sent no less frequently than every _____. | 24 hours  | 36 hours   | 48 hours  | Monday, Wednesday, and Friday  |         |
| 4 | 422 | B | The all-purpose nozzle will produce a fog spray when you _____.  | pull the nozzle handle all the way back toward the operator       | pull the nozzle handle back to a position where the handle is perpendicular to the plane of the nozzle   | push the nozzle handle forward as far as it will go | insert a fog applicator between the fire hose and nozzle                                     |         |
| 4 | 423 | A | When you stream a sea anchor, you should make sure that the holding line is _____.   | long enough to cause the pull to be more horizontal than downward | long enough to reach bottom  | short enough to cause the pull to be downward       | short enough to avoid tangling   |         |
| 4 | 424 | B | What would be used to call all stations in your vicinity by radiotelephone?  | Calling all stations  | Charlie Quebec   | Alpha Alpha   | Kilo   |         |
| 4 | 425 | A | If you must pump bilges while a vessel is in port, you should pump only _____.   | if discharge is led to a shore tank or barge                      | during the hours of darkness   | on the outgoing tide                                | as much as is necessary  |         |
| 4 | 426 | C | A 2,000 GT tankship is required to carry _____.  | emergency outfits only on an international voyage                 | one oxygen breathing apparatus with enough lifeline to reach from the open deck to any part of the tanks | two self-contained breathing apparatus              | two canister type gas masks if such vessel is authorized to carry grade A, B, C or D liquids |         |
| 4 | 427 | B | Radio station logs involving communications during a disaster shall be kept by the station licensee for at least _____.                                  | 4 years from date of entry  | 3 years from date of entry   | 2 years from date of entry                          | 1 year from date of entry  |         |
| 4 | 428 | C | Physical exertion on the part of a person who has fallen into cold water would _____.  | be the best thing to try if there was no rescue in sight          | increase survival time in the water  | increase the rate of heat loss from the body        | not affect the heat loss from the body   |         |

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| 4 | 429 | A | You are at sea and not in a special area as defined in ANNEX V of MARPOL. How many nautical miles from land must you be to discharge ground garbage that will pass through a one-inch (25 mm) screen into the sea?                         | 3 nm  | 6 nm  | 12 nm  | 25 nm  |         |
| 4 | 430 | C | The effects of free surface on a vessel's initial stability do NOT depend upon the _____.  | volume of displacement of the vessel                          | dimensions of the surface of the liquid   | amount of liquid in slack tanks  | specific gravity of the liquid in the tank                             |         |
| 4 | 431 | C | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 31'-10". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.             | FWD 29'-01", AFT 31'-04"                                      | FWD 29'-05", AFT 31'-00"  | FWD 29'-08", AFT 30'-09"   | FWD 29'-11", AFT 30'-07"   | ST-0007 |
| 4 | 432 | B | One advantage of the "all-purpose nozzle" is that it _____.  | can fit any size hose   | converts a stream of water into a fog   | increases the amount of water reaching the fire  | can spray two streams of water at the same time                        |         |
| 4 | 433 | A | If passengers are on board when an abandon ship drill is carried out, they should _____.   | take part   | watch   | go to their quarters   | stay out of the way and do what they want                              |         |
| 4 | 434 | B | You are underway in the Gulf of Mexico when you hear a distress message over the VHF radio. The position of the sender is about 20 miles south of Galveston, TX, and you are about 80 miles ESE of Galveston. What action should you take? | Immediately acknowledge receipt of the distress message       | Defer acknowledgment for a short interval so that a coast station may acknowledge receipt | Do not acknowledge receipt until other ships nearer to the distress have acknowledged      | Do not acknowledge receipt because you are too far away to take action |         |
| 4 | 0   | D | Frapping lines _____.  | secure the lifeboat in the davits when in the stowed position | bring the lifeboat close alongside the rail in the embarkation position                   | give the occupants a safety line when the boat is being lowered from the embarkation level | reduce the swinging of the lifeboat at the embarkation level           |         |
| 4 | 1   | D | Your vessel is on an even keel. The MT1 of your vessel is 1000 ft-tons. How many tons of cargo must be loaded in number 4 hold which is 100 feet abaft the tipping center, if she is to have a 2 foot drag?                                | 90 tons   | 100 tons  | 130 tons   | 240 tons   |         |
| 4 | 2   | C | An airplane wants a vessel to change course and proceed towards a vessel in distress. The actions of the aircraft to convey this message will NOT include _____.   | circling the vessel at least once                             | heading in the direction of the distress location   | flashing the navigation lights on and off  | crossing ahead and rocking the wings                                   |         |

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| 4 | 3  | D | To turn over an inflatable liferaft that is upside down, you should pull on the _____.  | canopy  | manropes   | sea painter  | righting strap  |  |
| 4 | 5  | D | Pollution of the waterways may result from the discharge of _____.  | sewage  | the galley trash can   | an oily mixture of one part per million                      | All of the above  |  |
| 4 | 6  | D | Records of tests and inspections of a cargo vessel's fire extinguishing systems shall be kept on board _____.   | for 1 year  | for 2 years  | until the next Coast Guard inspection                        | until the vessel's Certificate of Inspection expires              |  |
| 4 | 7  | A | You have been carrying a liquid with flammable limits of 1% to 7% mixture with air. If your instructions say that no one shall enter the tank if the vapor concentration is over 15% of the LEL, what is the maximum allowable percentage of vapors for men to enter? | .15%  | .85%   | 1.05%  | 7.00%   |  |
| 4 | 9  | A | The International Regulations for Preventing Collisions at Sea contain the requirements for _____.  | signals that must be sounded when being towed in restricted visibility  | minimum hawser lengths when being towed  | lights that must be displayed on anchor buoys                | mooring procedures for support vessels when transferring cargo    |  |
| 4 | 10 | B | What is the definition of transverse metacenter?  | The distance between the actual center of gravity and the maximum center of gravity that will still allow a positive stability. | The point to which G may rise and still permit the vessel to possess positive stability. | The sum of the center of buoyancy and the center of gravity. | The transverse shift of the center of buoyancy as a vessel rolls. |  |
| 4 | 11 | D | A patient in shock should NOT be placed in which position?  | On their side if unconscious  | Head down and feet up, no injuries to face or head                                       | Flat on their back with head and feet at the same level      | Arms above their head   |  |
| 4 | 12 | B | The purpose of inert gas systems aboard tank vessels is to _____.   | allow sufficient oxygen in the tank to sustain life   | prevent outside air from entering the tank   | provide increase in cargo discharge pressure                 | comply with double hull pollution prevention regulations          |  |
| 4 | 13 | A | Your liferaft is to leeward of a fire on the water and riding to its sea anchor. You should FIRST _____.  | boat the sea anchor   | paddle away from the fire  | splash water over the liferaft to cool it                    | get out of the raft and swim to safety                            |  |
| 4 | 14 | B | A yellow signal floating in the air from a small parachute, about 300 feet above the water, would indicate that a submarine _____.  | has fired a torpedo during a drill  | is about to rise to periscope depth  | is on the bottom in distress                                 | is disabled and unable to surface                                 |  |
| 4 | 15 | C | In reference to accidental oil pollution, the most critical time during bunkering is when _____.  | you first start to receive fuel   | hoses are being blown down   | final topping off is occurring                               | hoses are being disconnected                                      |  |

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| 4 | 17 | D | The atmosphere in a tank is too rich when it is _____.   | incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere below the LFL (Lower Flammable Level) | capable of supporting combustion   | in a noncombustible state which can be relied on to occur naturally on a regular basis             | incapable of supporting combustion because the hydrocarbon vapor content makes the atmosphere above the UFL (Upper Flammable Limit) |  |
| 4 | 18 | C | When giving mouth-to-mouth rescue breathing to an adult, you should breathe at the rate of how many breaths per minute?  | 4   | 8  | 12   | 20  |  |
| 4 | 19 | B | The operator of the ship's radiotelephone, if the radiotelephone is carried voluntarily, must hold at least a _____.   | mate's license  | restricted radiotelephone operator permit                                  | second-class radio operator's license  | seaman's document   |  |
| 4 | 20 | A | If the vertical center of gravity (VCG) of a ship rises, the righting arm (GZ) for the various angles of inclination will _____.   | decrease  | increase   | remain unchanged   | be changed by the amount of $GG' \times \cos$ of the angle  |  |
| 4 | 21 | D | Coast Guard regulations require that all of the following emergencies be covered at the periodic drills on a fishing vessel EXCEPT _____.  | minimizing the affects of unintentional flooding  | fire on board  | rescuing an individual from the water  | emergency towing  |  |
| 4 | 22 | D | An inert gas system installed on a tanker is designed to _____.  | aid in the stripping and cleaning of cargo tanks  | increase the rate of discharge of cargo                                    | force toxic and explosive fumes from a cargo tank to vent to the outside atmosphere                | lower the oxygen levels inside cargo tanks, making explosion nearly impossible  |  |
| 4 | 23 | C | Your ship is sinking rapidly. A container containing an inflatable liferaft has bobbed to the surface upon functioning of the hydrostatic release. Which action should you take? | Cut the painter line so it will not pull the liferaft container down.   | Swim away from the container so you will not be in danger as it goes down. | Take no action because the painter will cause the liferaft to inflate and open the container.      | Manually open the container and inflate the liferaft with the hand pump.  |  |
| 4 | 24 | A | Which single-letter sound signal may be made only in compliance with the International Rules of the Road?  | D   | F  | Q  | U   |  |
| 4 | 25 | B | You are on a 30,000 DWT tankship engaged in trade to another country signatory to MARPOL 73/78. Which statement is TRUE?   | The Certificate of Inspection is prima facie evidence of compliance with MARPOL 73/78.  | The IOPP Certificate is valid for 5 years.                                 | An IOPP Certificate is invalid if the ship carries cargoes outside the classes authorized thereon. | AN IOPP Certificate is renewed at each inspection for certification.  |  |

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| 4 | 26 | B | The galley on your cargo vessel has an area of 2,500 square feet. What would fulfill the minimum requirements for fire protection?                      | One B-I extinguisher  | One B-II extinguisher   | One B-II and one C-II extinguisher                 | One B-V extinguisher                      |  |
| 4 | 27 | A | The atmosphere in a tank is too lean if it is _____.  | incapable of supporting combustion because the hydrocarbon content is below the LFL (Lower Flammable Limit) | capable of supporting combustion because the hydrocarbon content is above the UFL (Upper Flammable Limit) | capable of supporting a fire once started          | not safe for ballasting                   |  |
| 4 | 28 | C | The rescuer can best provide an airtight seal during mouth-to-mouth resuscitation by pinching the victim's nostrils and _____.                          | cupping a hand around the patient's mouth   | keeping the head elevated   | applying his mouth tightly over the victim's mouth | holding the jaw down firmly               |  |
| 4 | 29 | C | In order to discharge a CO2 portable fire extinguisher, the operator must FIRST _____.  | invert the CO2 extinguisher   | squeeze the two trigger handles together  | remove the locking pin                             | open the discharge valve                  |  |
| 4 | 30 | B | Transverse stability calculations require the use of _____.   | hog or sag calculations or tables   | hydrostatic curves  | general arrangement plans                          | cross-sectional views of the vessel       |  |
| 4 | 31 | A | All of the following are part of the fire triangle EXCEPT _____.  | electricity   | fuel  | oxygen   | heat                                      |  |
| 4 | 32 | B | Every U.S. crude oil tankship with a keel laying date on or after 1/1/75, shall be equipped with an inert gas system if the tonnage is more than _____. | 100,000 DWT (long tons)   | 100,000 DWT (metric tons)   | 50,000 DWT (long tons)                             | 50,000 DWT (metric tons)                  |  |
| 4 | 33 | D | Inflatable liferafts are less maneuverable than lifeboats due to their _____.   | shape   | shallow draft   | large sail area                                    | All of the above                          |  |
| 4 | 34 | D | Which single-letter sound signal(s) may only be made in compliance with the Rules of the Road?  | D   | E   | S  | All of the above                          |  |
| 4 | 35 | A | Which statement is TRUE of a gasoline spill?  | It is visible for a shorter time than a fuel oil spill.   | It is not covered by the pollution laws.  | It does little harm to marine life.                | It will sink more rapidly than crude oil. |  |
| 4 | 36 | C | The number and type of hand portable fire extinguishers required outside and in the vicinity of the paint locker exit is _____.                         | one A-I   | two A-IIs   | one B-II   | one C-II                                  |  |

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| 4 | 37 | D | What is the generally accepted method of determining whether the atmosphere within a cargo tank is explosive, too rich, or too lean to support combustion?                       | Use the open flame test on a small sample that has been taken from the tank. | Send a gas sample ashore for laboratory analysis. | Enter the tank with an oxygen analyzer.                                | Use an explosimeter.  |
| 4 | 38 | D | When applying chest compressions on an adult victim during CPR, the sternum should be depressed about _____.   | 1/2 inch or less   | 1/2 to 1 inch                                     | 1 to 1-1/2 inches  | 1-1/2 to 2 inches   |
| 4 | 39 | A | A flame screen _____.  | permits the passage of vapor but not of flame                                | prevents the passage of flammable vapors          | prevents inert gas from leaving a tank                                 | permits vapors to exit but not enter a tank   |
| 4 | 40 | C | Regardless of local requirements/regulations, when in a U.S. port, all oil spills must be reported to _____.   | Environmental Protection Agency  | Minerals Management Service                       | National Response Center (USCG)  | All of the Above  |
| 4 | 41 | D | Before using a fixed CO2 system to fight an engine room fire, you must _____.  | secure the engine room ventilation   | secure the machinery in the engine room           | evacuate all engine room personnel                                     | All of the above  |
| 4 | 42 | B | The advantages of using an inert gas system on a tank vessel is that it provides _____.  | for faster loading   | tank atmosphere with low oxygen content           | better fuel economy  | All of the above  |
| 4 | 43 | D | If an inflatable liferaft is overturned, it may be righted by _____.   | filling the stabilizers on one side with water                               | releasing the CO2 cylinder                        | pushing up from under one end  | standing on the inflating cylinder and pulling on the straps on the underside of the raft |
| 4 | 44 | B | The spread of fire is prevented by _____.  | heating surfaces adjacent to the fire  | removing combustibles from the endangered area    | increasing the oxygen supply   | All of the above  |
| 4 | 45 | C | Which statement is TRUE concerning small oil spills?   | They usually disappear quickly.  | They usually stay in a small area.                | They may cause serious pollution as the effect tends to be cumulative. | A small spill is not dangerous to sea life in the area.                                   |
| 4 | 46 | D | The required number and type of hand portable fire extinguishers to be carried in the vicinity of the radio room exit for a tank vessel on an international voyage is one _____. | B-I  | B-II  | C-I  | C-II  |
| 4 | 47 | D | What is used to test a tank for oxygen content?  | Combustible gas indicator  | Vapor indicator                                   | Atmosphere analyzer kit  | None of the above   |

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| 4 | 48 | A | You are administering chest compressions during CPR. Where on the victim's body should the pressure be applied?  | Lower half of the sternum                                    | Tip of the sternum  | Top half of the sternum   | Left chest over the heart   |  |
| 4 | 49 | C | You are fighting a fire in the electrical switchboard in the engine room. You should secure the power, then _____.   | use a portable foam extinguisher                             | use a low-velocity fog adapter with the fire hose   | use a portable CO2 extinguisher   | determine the cause of the fire                                       |  |
| 4 | 50 | B | What is not usually a concern when loading a single-hulled tanker?   | Bending moments  | Initial stability   | Draft   | Trim  |  |
| 4 | 51 | B | On cargo and miscellaneous vessels what is NOT a required part of the fireman's outfit?  | Self-contained breathing apparatus with a lifeline attached  | Combustible gas indicator   | Rigid helmet, boots, and gloves   | Flame safety lamp   |  |
| 4 | 52 | A | Which statement is TRUE concerning inert gas systems on tank vessels?  | Flue gases from the ship's boilers are used in some systems. | Helium is the preferred inert gas.  | Using the system accelerates the rusting of the tanks.                                  | All of the above  |  |
| 4 | 53 | B | If an inflatable liferaft inflates upside down, you can right it by _____.   | pushing up on one side                                       | standing on the CO2 bottle, holding the bottom straps, and throwing your weight backwards | getting at least three or four men to push down on the side containing the CO2 cylinder | doing nothing; it will right itself after the canopy supports inflate |  |
| 4 | 54 | C | On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____. | 6°   | 12°   | 20°   | 25°   |  |
| 4 | 55 | B | Most minor spills of oil products are caused by _____.   | equipment failure  | human error   | major casualties  | unforeseeable circumstances   |  |
| 4 | 56 | D | The required number and type of hand portable fire extinguishers for staterooms on cargo vessels is _____.   | one A-I  | one B-I   | one C-I   | none required   |  |
| 4 | 57 | C | The minimum concentration of a vapor in air which can form an explosive mixture is called the _____.   | auto-ignition point  | flash point   | lower explosive limit (LEL)   | threshold limit value (TLV)   |  |
| 4 | 58 | A | Changing rescuers while carrying out artificial respiration should be done _____.  | without losing the rhythm of respiration                     | only with the help of two other people  | by not stopping the respiration for more than 5 minutes                                 | at ten-minute intervals   |  |
| 4 | 59 | D | Where on your vessel shall the recharge for each self-contained breathing apparatus be carried?  | Emergency gear locker  | Bridge or pilothouse area   | Where they can be readily found   | The same location as the equipment it reactivates                     |  |



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| 4 | 60 | D | Your vessel rolls slowly and sluggishly. This indicates that the vessel _____.   | has off-center weights  | is taking on water   | has a greater draft forward than aft                                | has poor stability  |         |
| 4 | 61 | C | You are towing a 1000 gross ton gasoline tank barge. The barge is NOT gas free. Regulations say that the cargo tank hatches, ullage holes, and Butterworth plates on the barge may remain open without flame screens _____.        | without restriction   | only while in areas of good weather  | when under the supervision of a senior crew member on duty          | only when the barge is empty                                    |         |
| 4 | 62 | C | The deck water seal of the inert gas system _____.   | cools the inert gas and prevents soot from entering the cargo tanks           | acts as an emergency system shutdown when the inlet pressures exceed the safe working pressure in the hazardous zone | prevents the backflow of hydrocarbon gasses into nonhazardous areas | relieves sudden large overpressures in the system               |         |
| 4 | 63 | D | You have abandoned ship and are in an inflatable raft that has just inflated. You hear a continuous hissing coming from a fitting in a buoyancy tube. What is the cause of this?   | The saltwater is activating the batteries of the marker lights on the canopy. | The inflation pump is in automatic operation to keep the tubes fully inflated.                                       | A deflation plug is partially open allowing the escape of CO2.      | Excess inflation pressure is bleeding off and should soon stop. |         |
| 4 | 64 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 338 tons  | 309 tons   | 281 tons  | 263 tons  | ST-0001 |
| 4 | 65 | A | The most serious effect of trapped air in a diesel engine jacket water cooling system is that it _____.  | accelerates erosion   | reduces the effectiveness of chromate additives  | can form pockets of high chemical concentrates                      | accelerates formation of sludge deposits                        |         |
| 4 | 66 | C | The galley on your cargo vessel has an area of 2,900 square feet. What will fulfill the requirements for fire protection?  | One B-I extinguisher  | One B-II extinguisher  | One B-II and one C-II extinguisher                                  | One B-V extinguisher  |         |
| 4 | 67 | B | The explosive range of petroleum vapors mixed with air is _____.   | 0% to 1%  | 1% to 10%  | 10% to 15%  | 12% to 20%  |         |
| 4 | 68 | B | The MOST important element in administering CPR is _____.  | having the proper equipment for the process                                   | starting the treatment quickly   | administering of oxygen   | treating for traumatic shock                                    |         |
| 4 | 69 | A | Fire hose couplings _____.   | are made of bronze, brass, or soft alloy metals                               | should be painted red in order to identify hose lengths  | are specially hardened to prevent crushing                          | should be greased frequently                                    |         |
| 4 | 70 | D | What represents the center of gravity?   | GZ  | M  | B   | G   | D001SA  |

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| 4 | 71 | D | Each hand portable fire extinguisher must be marked with _____.  | the name of the vessel on which it is located  | the date that it was installed   | the names of the individuals qualified to use it     | an identification number   |        |
| 4 | 72 | B | To disengage a survival craft suspended from the cable above the water, you must pull the safety pin and _____.                      | pull the hook release handle   | pull the hook release handle and use the ratchet bar   | use the ratchet bar and depress the retainer         | pull the hook release handle and depress the retainer                |        |
| 4 | 73 | A | A liferaft which has inflated bottom-up on the water _____.  | should be righted by standing on the carbon dioxide cylinder, holding the righting straps, and leaning backwards | should be righted by standing on the life line, holding the righting straps, and leaning backwards | will right itself when the canopy tubes inflate      | must be cleared of the buoyant equipment before it will right itself |        |
| 4 | 74 | A | Outlets in gasoline fuel lines are _____.  | prohibited   | permitted for draining fuel from lines   | permitted for drawing fuel samples                   | permitted for bleeding air from lines                                |        |
| 4 | 75 | A | If you must abandon a rig in VERY HEAVY SEAS, in a survival craft, when should you remove the safety pin and pull the hook release?  | Immediately upon launching   | One to three feet before first wave contact  | Upon first wave contact                              | Only when waterborne   |        |
| 4 | 76 | C | The required number and type of hand portable fire extinguishers required for a galley having an area of 3,500 square feet is _____. | one B-II   | one C-II   | two B-II's or C-II's                                 | two A-II's or B-II's   |        |
| 4 | 77 | C | Normally, the percentage of oxygen in air is _____.  | 16%  | 18%  | 21%  | 25%  |        |
| 4 | 78 | A | Before CPR is started, you should _____.   | establish an open airway   | treat any bleeding wounds  | insure the victim is conscious                       | make the victim comfortable  |        |
| 4 | 79 | A | A squeeze-grip type carbon dioxide portable fire extinguisher has been partially discharged. It should be _____.                     | labeled empty and recharged as soon as possible  | replaced in its proper location if weight loss is no more than 25%                                 | replaced in its proper location regardless of weight | replaced in its proper location if weight loss is no more than 15%   |        |
| 4 | 80 | B | What represents the metacentric height?  | M  | GM   | BM   | GZ   | D001SA |
| 4 | 81 | A | Which extinguishing agent is most likely to allow reflash as a result of not cooling the fuel below its ignition temperature?        | CO2  | Water stream   | Water spray  | Foam   |        |
| 4 | 82 | B | You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.                 | to bank off a bulkhead onto the fire   | at the seat of the fire, starting at the near edge   | over the top of the fire                             | at the main body of the fire   |        |

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| 4 | 83 | D | If more than one raft is manned after the vessel has sunk, you should _____.  | go in a different direction in search of land                                      | spread out to increase the possibility of a search aircraft finding you       | reduce the number of rafts by getting as many people as possible into as few rafts as possible | tie the rafts together and try to stay in a single group |        |
| 4 | 84 | D | After using a CO2 portable extinguisher, it should be _____.  | put back in service if some CO2 remains  | hydrostatically tested  | retagged   | recharged  |        |
| 4 | 85 | D | To prevent the spread of fire by convection you should _____.   | shut off all electrical power  | remove combustibles from direct exposure                                      | cool the bulkhead around the fire  | close all openings to the area                           |        |
| 4 | 86 | C | On an inspection of your tankship you notice that there are no portable fire extinguishers in the pumproom. To comply with regulations, you _____.  | need not be concerned since no portable extinguishers are required in the pumproom | should arrange to have a B-II extinguisher placed in the vicinity of the exit | should arrange to have a B-II extinguisher placed in the lower pumproom                        | may substitute sand for the required extinguishers       |        |
| 4 | 87 | B | Which type of portable lighting may be used to enter a compartment on a tank barge which is NOT gas-free?   | A three-cell flashlight  | An explosion-proof, self-contained, battery-fed lamp                          | A spark resistant and flame retardant lamp   | None of the above  |        |
| 4 | 88 | D | You are attempting to administer CPR to a victim. When you blow into his mouth it is apparent that no air is getting into the lungs. What should you do?  | Blow harder to force the air past the tongue.                                      | Raise the victim's head higher than his feet.                                 | Press on the victim's lungs so that air pressure will blow out any obstruction.                | Re-tip the head and try again.                           |        |
| 4 | 89 | B | To determine what navigation lights and day-shapes must be displayed on mobile offshore drilling units under tow, you should check the _____.   | American Bureau of Shipping classification rules                                   | International Regulations for Preventing Collisions at Sea                    | Safety of Life at Sea Convention   | Minerals Management Service rules                        |        |
| 4 | 90 | B | Refer to the illustration below. Which represents the righting arm?   | GM   | GZ  | BM   | Angle MGZ  | D001SA |
| 4 | 91 | A | Except in rare cases, it is impossible to extinguish a shipboard fire by _____.   | removing the fuel  | interrupting the chain reaction   | removing the oxygen  | removing the heat  |        |
| 4 | 92 | B | The liquid mud tanks on your vessel measure 24'L by 16'B by 8'D. The vessel's displacement in fresh water is 864 tons and the specific gravity of the mud is 1.47. What is the reduction in GM due to 2 of these tanks being slack? | .32 foot   | .80 foot  | .96 foot   | 1.12 feet  |        |

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| 4 | 93  | D | If, for any reason, it is necessary to abandon ship while far out at sea, it is important that the crew members should _____.  | separate from each other as this will increase the chances of being rescued | get away from the area because sharks will be attracted to the vessel | immediately head for the nearest land                          | remain together in the area because rescuers will start searching at the vessel's last known position |
| 4 | 94  | B | If you desired to communicate with another station that your navigation lights were not functioning, you would send _____.   | PB  | PD1   | MJ   | LN1   |
| 4 | 95  | C | A spark arrestor _____.  | keeps sparks from falling into an open tank                                 | secures covers on ullage openings                                     | prevents sparks from getting out of an engine's exhaust system | grounds static electricity  |
| 4 | 96  | D | A B-III foam extinguisher contains _____.  | 2-1/2 gallons of foam   | 8 gallons of foam   | 10 gallons of foam   | 12 gallons of foam  |
| 4 | 97  | D | The only portable electrical equipment permitted in a compartment which is not gas free is a lamp that is _____.   | battery fed   | self-contained  | approved explosion proof                                       | All of the above  |
| 4 | 99  | B | Annex V to MARPOL 73/78 contains requirements pertaining to the discharge into the marine environment of _____.  | oil   | garbage   | noxious liquid substances                                      | None of the above   |
| 4 | 100 | B | When a vessel has positive stability, the distance between the line of force through B and the line of force through G is called the _____.  | metacentric height  | righting arm  | righting moment  | metacentric radius  |
| 4 | 101 | B | On a vessel of 10,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank top. The hold is 40 feet long and 50 feet wide. The reduction in metacentric height is _____. | 1.1 feet  | 1.2 feet  | 1.3 feet   | 1.5 feet  |
| 4 | 102 | A | You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.   | put the vessel's stern into the wind  | abandon ship to windward  | call for assistance  | keep going at half speed  |
| 4 | 103 | A | You have just abandoned ship and boarded a raft. After the raft is completely inflated you hear a whistling noise coming from a safety valve. You should _____.  | not become alarmed unless it continues for a long period of time            | plug the safety valve   | unscrew the deflation plugs                                    | remove the safety valve and replace it with a soft patch  |
| 4 | 104 | B | In the International Code of Signals, the code signal meaning "I require immediate assistance" is _____.   | AE  | CB  | DX   | CP  |

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| 4 | 105 | D | The International Regulations for Preventing Collisions at Sea contain the requirements for _____.  | lights that must be displayed on anchor buoys           | the display of load line markings   | minimum horsepower for tugs involved in rig moves                          | lighting of mobile offshore drilling units being towed                         |  |
| 4 | 106 | C | A B-II fire extinguisher has a minimum capacity of _____.   | 3 gallons of foam                                       | 20 pounds of CO2  | 10 pounds of dry chemical  | All of the above   |  |
| 4 | 107 | B | What best describes for how long a gas-free test is good?   | For as long as is indicated on the gas-free certificate | For the instant that it is made   | Until valves in line with the tank or compartment are reopened             | Until changes in temperature or pressure affect the vapor content in the space |  |
| 4 | 108 | B | Antiseptics are used principally to _____.  | speed healing   | prevent infection   | reduce inflammation  | increase blood circulation   |  |
| 4 | 109 | C | Your vessel has a displacement of 10,000 tons. It is 350 feet long and has a beam of 55 feet. You have timed it's full rolling period to be 15.0 seconds. What is your vessel's approximate GM? | 1.18 feet   | 1.83 feet   | 2.60 feet  | 3.36 feet  |  |
| 4 | 110 | B | A vertical shift of weight to a position above the vessel's center of gravity will _____.   | increase reserve buoyancy                               | decrease the righting moments   | decrease KG  | increase KM  |  |
| 4 | 111 | A | In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.   | convection  | conduction  | radiation  | ventilation  |  |
| 4 | 112 | A | Your small vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.   | rigging a sea anchor                                    | constantly shifting the rudder  | moving all personnel forward and low                                       | moving all personnel aft   |  |
| 4 | 113 | D | You hear air escaping from the liferaft just after it has inflated. You should _____.   | quickly hunt for the hole before the raft deflates      | check the sea anchor line attachment for a tear if the seas are rough                     | check the painter line attachment for a tear caused by the initial opening | not panic since the safety valves allow excess pressure to escape              |  |
| 4 | 114 | A | If you are in urgent need of a helicopter, which signal code should you send?   | BR  | BS  | BT1  | BZ   |  |
| 4 | 115 | B | Which is TRUE concerning immersion suits and their use?   | Only a light layer of clothing may be worn underneath.  | They provide sufficient flotation to do away with the necessity of wearing a life jacket. | They should be tight fitting.  | A puncture in the suit will not appreciably reduce its value.                  |  |
| 4 | 116 | C | What is classified as a B-II fire extinguisher?   | A 2-1/2 gallon soda acid and water                      | A 1-1/4 gallon foam   | A 2-1/2 gallon foam  | A 20 pound dry chemical  |  |
| 4 | 117 | A | Combustible gas indicators operate by drawing an air sample into the instrument _____.  | over an electrically heated platinum filament           | where it is mixed with nitrogen   | where it is ignited by a sparking device                                   | where its specific gravity is measured   |  |

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| 4 | 118 | B | A tourniquet should be used to control bleeding ONLY _____.  | with puncture wounds                   | when all other means have failed            | when the victim is unconscious                                    | to prevent bleeding from minor wounds                             |  |
| 4 | 119 | D | What would be considered a vessel under the International Rules of the Road?   | A jack-up rig under tow                | A semisubmersible drilling rig under tow    | A semisubmersible drilling rig drifting after breaking a tow line | All of the above  |  |
| 4 | 120 | B | The point to which your vessel's center of gravity (G) may rise and still permit the vessel to have positive stability is called the _____.  | metacentric point                      | metacenter                                  | metacentric radius  | tipping center  |  |
| 4 | 121 | B | Your vessel has a displacement of 24,500 tons. It is 529 feet long and has a beam of 71 feet. You have timed your full charge rolling period to be 25.0 seconds. What is your vessel's approximate GM? | 1.25 feet                              | 1.56 feet                                   | 1.98 feet   | 2.43 feet   |  |
| 4 | 122 | B | A negative metacentric height _____.   | will always cause a vessel to capsize  | should always be immediately corrected      | always results from off-center weights                            | All of the above are correct                                      |  |
| 4 | 123 | A | If you are forced to abandon ship in a lifeboat, you should _____.   | remain in the immediate vicinity       | head for the nearest land                   | head for the closest sea-lanes                                    | vote on what to do, so all hands will have a part in the decision |  |
| 4 | 125 | A | Addition of weight to a vessel will ALWAYS _____.  | reduce reserve buoyancy                | increase righting moments                   | increase GM   | All of the above  |  |
| 4 | 126 | D | Which portable fire extinguisher is classified as a type B-III extinguisher?   | 12 gallon soda acid                    | 20 gallon foam                              | 30 pound carbon dioxide   | 20 pound dry chemical   |  |
| 4 | 127 | D | Before welding in a tank that has carried petroleum products, the tank must be certified by _____.   | the Coast Guard                        | the American Bureau of Shipping             | the shipyard fire department                                      | a certified marine chemist  |  |
| 4 | 128 | D | A seaman has a small, gaping laceration of the arm that is not bleeding excessively. What can be done as an alternative to suturing to close the wound?  | Wrap a tight bandage around the wound. | Apply a compression bandage.                | Use temporary stitches of sail twine.                             | Apply butterfly strips, then a sterile dressing.                  |  |
| 4 | 129 | C | A life float on a fishing vessel must be equipped with _____.  | a righting line                        | red hand flares                             | pendants  | drinking water  |  |
| 4 | 130 | B | When making a turn (course change) on most merchant ships, the vessel will heel outwards if _____.   | the vessel has very little draft       | G is above the center of lateral resistance | G is below the center of lateral resistance                       | the vessel is deeply laden  |  |

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| 4 | 131 | B | A vessel is floating at a mean draft of 16 feet. At this draft, the displacement is 8,000 tons. The length of the vessel is 475 ft., beam is 55 ft., TPI is 45. Calculate KM. (See P-value, K-value table in the blue pages of the Stability Data Reference Book) | 18.8 feet  | 20.9 feet   | 22.7 feet   | 32.0 feet  |
| 4 | 132 | D | The most serious effect of air trapped in a diesel engine jacket water cooling system is that it _____.   | causes colloid suspension in the cooling water                 | reduces the capability of the lubrication system                      | can form pockets which block the flow of coolant through the system | leads to the scuffing of cylinder walls                              |
| 4 | 133 | B | You have abandoned ship and are in charge of a liferaft. How much water per day should you permit each occupant to drink after the first 24 hours?  | 1 can  | 1 pint  | 1 quart   | 1 gallon   |
| 4 | 134 | A | What is the International Code signal for a decimal point between figures using flashing light?   | AAA  | TTTT  | EEEE  | AS   |
| 4 | 135 | D | Which statement concerning an accidental oil spill in the navigable waters of the U.S. is FALSE?  | The person in charge must report the spill to the Coast Guard. | Failure to report the spill may result in a fine.                     | The company can be fined for the spill.                             | The Corps of Engineers is responsible for the clean up of the spill. |
| 4 | 136 | A | Which item is NOT required to be marked with the vessel's name?   | Hand-portable fire extinguisher                                | Life preserver  | Immersion suit  | Lifeboat oar   |
| 4 | 137 | C | The officer responsible for the sanitary condition of the engineering department is the _____.  | Master   | Chief Mate  | Chief Engineer  | First Assistant  |
| 4 | 138 | C | A person reports to you with a fishhook in his thumb. To remove it you should _____.  | pull it out with pliers  | cut the skin from around the hook                                     | push the barb through, cut it off, then remove the hook             | have a surgeon remove it   |
| 4 | 140 | A | Which statement is TRUE of a stiff vessel?  | She will have a large metacentric height.                      | Her period of roll will be large due to her large metacentric height. | She will have an unusually high center of gravity.                  | She will pitch heavily.  |
| 4 | 141 | A | Which emergency is required to be covered at the required periodic drills on a fishing vessel?  | Recovering an individual from the water                        | Steering casualty   | Emergency towing  | Loss of propulsion power   |

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| 4 | 142 | D | You are in the Baltic Sea which is a special area listed in ANNEX V of MARPOL. How many miles from land must you be to discharge ground rags, glass, and bottles into the sea? | 3  | 12   | 25  | Must be retained aboard  |         |
| 4 | 143 | D | You have abandoned ship in tropical waters. Which procedure(s) should be used during a prolonged period in a raft?   | Wet clothes during the day to decrease perspiration.   | Get plenty of rest.  | Keep the entrance curtains open.  | All of the above   |         |
| 4 | 144 | C | The unit of duration of a dash in Morse Code is _____.   | one and one-half times the length of a dot   | twice the length of a dot  | three times the length of a dot   | four times the length of a dot   |         |
| 4 | 145 | D | Which statement concerning an accidental oil spill in the navigable waters of the U.S. is TRUE?  | The Corps of Engineers is responsible for the clean up of the spill.   | The Department of Interior is responsible for the clean up of the spill.                                   | A warning broadcast must be made by radiotelephone.   | The person in charge must report the spill to the Coast Guard.                               |         |
| 4 | 147 | A | Your vessel is on a voyage of three months duration. The number of sanitary inspections required is _____.   | one  | three  | six   | twelve   |         |
| 4 | 148 | B | First aid treatment for small cuts and open wounds is to _____.  | lay the patient down and cover the wound when the bleeding stops   | stop the bleeding, clean, medicate, and cover the wound  | apply an ice pack to the wound and cover it when the bleeding stops   | apply a hot towel to purge the wound, then medicate and cover it                             |         |
| 4 | 149 | C | A signal indicating zone time is preceded with the letter _____.   | L  | N  | T   | Z  |         |
| 4 | 150 | D | A vessel would be referred to as "tender" when the weight of the cargo is _____.   | evenly distributed vertically and the double bottoms are full  | concentrated low and the double bottoms are empty  | concentrated low and the double bottoms are full  | concentrated high and the double bottoms are empty   |         |
| 4 | 151 | A | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?               | 1.50 feet  | 1.96 feet  | 2.21 feet   | 2.78 feet  | ST-0002 |
| 4 | 152 | B | What is the function of the bypass valve on the self-contained breathing apparatus?  | The valve opens in excessive heat to release the oxygen in the bottle and prevent the bottle from exploding. | In the event of a malfunction in the equipment, the valve can be operated manually to give the wearer air. | When pressure in the apparatus exceeds 7 psi above atmospheric pressure, the valve opens to release pressure. | The valve reduces the high pressure in the bottle to about 3 psi above atmospheric pressure. |         |



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| 4 | 153 | A | If you reach shore in a liferaft, the first thing to do is _____.  | drag the raft ashore and lash it down for a shelter   | find some wood for a fire  | get the provisions out of the raft  | set the raft back out to sea so someone may spot it               |         |
| 4 | 154 | C | The standard rate of signaling by flashing light is _____.   | twenty letters per minute   | thirty letters per minute  | forty letters per minute  | fifty letters per minute  |         |
| 4 | 155 | A | When oil is accidentally discharged into the water, what should you do after reporting the discharge?  | Contain the oil and remove as much of it as possible from the water.  | Throw chemical agents on the water to disperse the oil.  | Throw sand on the water to sink the oil.  | Obtain your permit from the Corps of Engineers                    |         |
| 4 | 156 | D | The Coast Guard determines how many passengers are permitted on a "T-Boat" by applying the _____.  | "Length of Rail" criteria, allowing 30 inches of rail space along the vessel's sides and transom for each passenger | "Deck Area" criteria that permits one passenger for every 10 square feet of deck space available for passenger use | "Fixed Seating" criteria that allocates 18 inches of space for each passenger to rest his/her buttocks upon | Any or a combination of the above criteria                        |         |
| 4 | 157 | B | On a tankship, sanitary inspections of the crew's quarters are the responsibility of the _____.  | Master and Second Mate  | Master and Chief Engineer  | Master and union delegate   | Master and Chief Mate   |         |
| 4 | 158 | B | A person has suffered a laceration of the arm. Severe bleeding has been controlled by using a sterile dressing and direct pressure. What should you do next?     | Apply a tourniquet to prevent the bleeding from restarting.   | Apply a pressure bandage over the dressing.  | Remove any small foreign matter and apply antiseptic.   | Administer fluids to assist the body in replacing the lost blood. |         |
| 4 | 160 | A | A vessel is tender if cargo weight is _____.   | concentrated high and the double bottoms empty  | concentrated low and the double bottoms empty  | evenly distributed vertically with the double bottoms full  | concentrated and with the double bottoms full                     |         |
| 4 | 161 | D | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo? | 2.15 feet   | 1.83 feet  | 1.64 feet   | 1.19 feet   | ST-0003 |
| 4 | 162 | B | The function of the bypass valve on the self-contained breathing apparatus is to _____.  | control the pressure of the oxygen as it enters the body  | allow the wearer to manually give himself oxygen   | release excess heat which would otherwise cause the bottle to explode                                       | allow exhaled gases to pass outside the bottle                    |         |
| 4 | 163 | B | You are at sea in an inflatable liferaft. In high latitudes, the greatest danger is _____.   | asphyxiation due to keeping the canopy closed   | hypothermia caused by cold temperature   | collapse of the raft due to cold temperatures   | starvation  |         |
| 4 | 165 | D | Which statement is FALSE regarding Halon as a fire extinguishing agent?  | It is more effective than CO2.  | It leaves no residue.  | It is noncorrosive.   | It is always non-toxic.   |         |
| 4 | 166 | C | On cargo vessels, which fire extinguisher is considered semi-portable?   | A-II  | C-II   | B-III   | All of the above  |         |

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| 4 | 167 | C | One method of controlling rats on vessels is by rat-proofing. Rat-proofing is accomplished by _____.   | installing rat guards on the mooring lines when in port                 | keeping foods protected and avoiding the accumulation of garbage                                 | eliminating possible living spaces for rats when the ship is constructed | trapping and/or poisoning the rats              |  |
| 4 | 168 | A | In all but the most severe cases, bleeding from a wound should be controlled by _____.   | applying direct pressure to the wound                                   | submerging the wound in lukewarm water   | cooling the wound with ice   | applying a tourniquet                           |  |
| 4 | 169 | B | The signal T 0735 means _____.   | The Greenwich mean time is 0735   | The zone time is 0735  | The latitude is 7° 35'   | The longitude is 7° 35'                         |  |
| 4 | 170 | C | In order to minimize the effects of a tender vessel, when carrying a cargo of lumber, you should _____.  | maximize your deck load   | distribute lumber so that those stowing most compactly per unit of weight are in the upper holds | place the heaviest woods in the lower holds                              | keep the vessel's frame spaces free from lumber |  |
| 4 | 171 | C | You are underway when a fire breaks out in the forward part of your vessel. If possible you should _____.  | call for assistance   | abandon ship to windward   | put the vessel's stern into the wind                                     | keep going at half speed                        |  |
| 4 | 173 | C | While adrift in an inflatable liferaft in hot, tropical weather _____.   | the canopy should be deflated so that it will not block cooling breezes | the pressure valve may periodically open to prevent excessive air pressure                       | deflating the floor panels may help to cool personnel                    | the entrance curtains should never be opened    |  |
| 4 | 174 | A | If you sent out a signal on 12 March 1980, the date would be indicated by _____.   | D120380   | D801203  | D031280  | D800312   |  |
| 4 | 175 | A | According to 46 CFR Subchapter T, a stability test may be dispensed with if the _____.   | Coast Guard has the approved stability test results of a sister vessel  | projected cost is unreasonable   | Coast Guard does not have a qualified inspector available                | vessel is of a proven design                    |  |
| 4 | 176 | A | On tank vessels, fully charged fire extinguishers are considered semi-portable when they have a gross weight of more than _____.                     | 55 pounds   | 75 pounds  | 95 pounds  | 125 pounds                                      |  |
| 4 | 177 | C | Before taking drinking water on board in the U.S. or its possessions, the responsible person from the vessel should determine that the source _____. | is used by a city   | has been treated with chlorine   | is approved by the Public Health Service                                 | is not from surface water                       |  |
| 4 | 178 | A | Bleeding from a vein may be ordinarily controlled by _____.  | applying direct pressure to the wound                                   | heavy application of a disinfectant  | pouring ice water directly onto the wound                                | pinching the wound closed                       |  |

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| 4 | 179 | C | A vessel is floating at a mean draft of 14 feet. At this draft, the displacement is 6780 tons. The length of the vessel is 450 feet, beam is 50 feet, and TPI is 45.5. What is the KM? (See the P-K table in the blue pages of the Stability Data Reference Book) | 28 feet  | 26 feet  | 22 feet  | 12 feet  |  |
| 4 | 180 | D | Which is TRUE of a "stiff" vessel?  | It has a small GM.   | It pitches heavily.  | It has an unusually high center of gravity.                                | Its period of roll is short.   |  |
| 4 | 182 | A | Which abbreviation refers to the horizontal distance between perpendiculars taken at the forward-most and the after-most points on a small passenger vessel's waterline at her deepest operating draft?   | LBP  | LOA  | LWL  | LLL  |  |
| 4 | 183 | D | Which statement is TRUE concerning an inflatable liferaft?  | The floor may be inflated for insulation from cold water.          | Crew members can jump into the raft without damaging it.               | The raft may be boarded before it is fully inflated.                       | All of the above   |  |
| 4 | 184 | A | When signaling by flashing light, the signal "C" should be used to indicate a(n) _____.   | affirmative statement  | question   | change from affirmative to negative  | request for the identity signal of the receiving stations  |  |
| 4 | 185 | C | Which substance is NOT considered to be "Oil" under the pollution prevention regulations?   | Petroleum and fuel oil   | Sludge   | Oil mixed with dredge spoil  | Oil refuse and oil mixed with wastes   |  |
| 4 | 186 | D | Fire hose stations shall be marked in red letters and figures such as Fire Station No. "1", "2", "3", etc. The height of the letters and figures must be at least _____.  | 1/2 inch   | 1 inch   | 1-1/2 inches   | 2 inches   |  |
| 4 | 187 | B | What represents poor sanitary procedures?   | Keep and use a separate filling hose for potable (drinking) water. | Locate potable (drinking) water tanks as low as possible in the bilge. | Eliminate enclosed spaces in which trash, food particles, dirt may gather. | After washing dishes with soap and warm water, sterilize them in water of at least 170°F (76.7°C). |  |
| 4 | 188 | A | The preferred method of controlling external bleeding is by _____.  | direct pressure on the wound                                       | elevating the wounded area   | pressure on a pressure point   | a tourniquet above the wound   |  |
| 4 | 189 | B | The purpose of the inclining experiment is to _____.  | determine the location of the metacenter                           | determine the lightweight center of gravity location                   | verify the hydrostatic data  | verify data in the vessel's operating manual   |  |
| 4 | 190 | A | Which technique could be used to give a more comfortable roll to a stiff vessel?  | Concentrate weights on upper decks                                 | Add weight near the centerline of the lower hold                       | Move weights lower in the ship   | Ballast the peak tanks   |  |

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| 4 | 191 | B | Where will you find the requirements for the lights that must be displayed on a mobile offshore drilling unit that is being towed?                               | Notice to Mariners   | COLREGS   | Coast Pilot  | Light List   |         |
| 4 | 192 | C | When two fire hose teams are attacking a fire they should _____.   | use different fire hose pressures  | use fire hoses of different sizes   | not attack the fire from opposite sides  | not wear protective clothing   |         |
| 4 | 194 | B | Which signal given by flashing light changes a statement into a question?  | C  | RQ  | N  | NO   |         |
| 4 | 195 | B | As soon as the officer in charge of the vessel has taken steps to stop the discharge of oil or oily mixture into a U.S. harbor, what must he do FIRST?           | Rig a boom for recovery.   | Call the Coast Guard.   | Alert the fire department.   | Inform the Environmental Protection Agency.  |         |
| 4 | 196 | D | The term "gross tonnage" refers to _____.  | the weight of the vessel measured in long tons                           | the weight of a vessel with all tanks full  | the weight of a grossly overloaded vessel  | the vessel's approximate volume including all enclosed spaces less certain exempt spaces |         |
| 4 | 197 | D | Normally, potable water systems are connected directly to the _____.   | fire-main system   | feed-water system   | freshwater sanitary system   | domestic water tank  |         |
| 4 | 198 | C | A person suffering from possible broken bones and internal injuries should _____.  | be assisted in walking around  | be examined then walked to a bunk   | not be moved but made comfortable until medical assistance arrives                             | not be allowed to lie down where injured but moved to a chair or bunk                    |         |
| 4 | 199 | B | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo? | 3.6 feet   | 4.2 feet  | 4.4 feet   | 4.9 feet   | ST-0004 |
| 4 | 200 | B | Which statement is TRUE of a tender vessel?  | It has a large GM.   | Its period of roll is long.   | It has a very low center of gravity.   | It has a good transverse stability.  |         |
| 4 | 201 | D | Your vessel is equipped with totally enclosed lifeboats. Which statement is TRUE when the boat is enveloped in flames?   | The ventilators will automatically close by the action of fusible links. | The motor takes its air supply from outside the lifeboat to prevent asphyxiation of the crew. | A water spray system to cool the outside of the boat is operated by a high-volume manual pump. | An air tank will provide about ten minutes of air for the survivors and the engine.      |         |
| 4 | 202 | D | The lifeline which is part of a fireman's outfit must be _____.  | made of steel or bronze wire rope  | corrosion resistant   | not less than 50 feet in length  | All of the above   |         |
| 4 | 203 | A | The number 2 lifeboat on a tanker would be _____.  | forwardmost on the port side   | forwardmost on the starboard side   | abaft #1 lifeboat port side  | abaft #1 lifeboat starboard side   |         |

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| 4 | 204 | C | When signaling by flashing light, a correctly received repetition of a signal is acknowledged by the signal _____.                              | T  | E  | OK   | AR   |  |
| 4 | 205 | D | When a vessel violates the oil pollution laws, who may be held responsible?   | Master only  | Owners only  | Licensed officers only   | Any individual connected with the vessel involved in the operation |  |
| 4 | 207 | B | Which chemical is used to treat water in order to ensure its safety for drinking?   | Nitrogen   | Chlorine   | Carbon   | Oxygen   |  |
| 4 | 208 | C | What is the primary purpose of a splint applied in first aid?   | Control bleeding                                       | Reduce pain  | Immobilize a fracture  | Reset the bone   |  |
| 4 | 209 | A | The number 2 lifeboat on a tanker would be found _____.   | on the port side                                       | on the starboard side  | abaft #1 lifeboat on the port side   | abaft #1 lifeboat on the starboard side                            |  |
| 4 | 210 | C | Metacentric height is an indication of a vessel's stability _____.  | for all angles of inclination                          | for large angles of inclination  | for small angles of inclination  | in no case   |  |
| 4 | 211 | A | The oxygen indicator is an instrument that measures the _____.  | amount of oxygen in the atmosphere of a confined space | amount of combustible gas as a percentage of the lower explosive limit in a confined space | concentration of CO2 as a percentage of oxygen in a confined space                                   | None of the above  |  |
| 4 | 212 | D | In the navigable waters of the United States, Annex V to MARPOL 73/78 is NOT applicable to a(n) _____.  | recreational yacht                                     | uninspected towing vessel  | uninspected passenger vessel under 100 GT  | U.S. government vessel in non-commercial service                   |  |
| 4 | 213 | A | Most lifeboats are equipped with _____.   | unbalanced rudders                                     | balanced rudders   | conraguide rudders   | straight rudders   |  |
| 4 | 214 | B | In a message sent by flashing light, what group of letters will direct the receiver of a message to repeat the transmission back to the sender? | REPEAT   | RPT  | RPB  | UD AA  |  |
| 4 | 216 | B | What is the total number of approved low-velocity spray ("water-fog") applicators required aboard a tankship?                                   | 4  | 7  | 10   | 11   |  |
| 4 | 217 | A | Which item do you NOT have to provide for the Coast Guard representative at the time of a stability test?                                       | A stability letter.                                    | Tank sounding tables and draft mark locations.   | Capacity plans showing the vertical and longitudinal centers of gravity of stowage spaces and tanks. | General arrangement plans of decks; holds and inner bottoms.       |  |
| 4 | 218 | D | A compound fracture is a fracture in which _____.   | more than one bone is broken                           | the same bone is broken in more than one place   | there is never any internal bleeding   | the bone may be visible  |  |

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| 4 | 219 | D | For the purposes of the International Rules of the Road, a non-self-propelled mobile offshore drilling unit under tow is considered to be a _____.   | non-displacement vessel  | limited vessel   | power-driven vessel   | vessel   |  |
| 4 | 220 | A | Metacentric height is a measure of _____.  | initial stability only   | stability through all angles   | maximum righting arm  | All of the above   |  |
| 4 | 221 | B | Which statement about the free surface effect is TRUE?   | It increases in direct proportion to the length of the tank times the breadth squared. | It decreases at increased angles of heel due to pocketing when a tank is 90% full. | It decreases in direct proportion to increasing specific gravity of the liquid in the tank. | In practice, the correction is considered to be a virtual reduction of KG. |  |
| 4 | 222 | B | On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____. | 14°  | 20°  | 26°   | 32°  |  |
| 4 | 223 | D | The steering oar in a lifeboat is _____.   | shorter than the others  | used for the stroke oar  | used by the forward man in the boat to direct the bow                                       | longer than the others and should be lashed to the stern                   |  |
| 4 | 224 | D | If there is a possibility of confusion, which signal should be used to send the group "True Bearing 045 Degrees"?  | 045  | B045   | B045T   | A045   |  |
| 4 | 226 | D | How many low-velocity spray applicators are required on the weather decks of a tankship?   | One  | Two  | Three   | Four   |  |
| 4 | 227 | D | The Emergency Position Indicating Radio beacon on a cargo vessel must be stowed _____.   | in an inside passageway  | in an approved bracket   | so that it is accessible from the bridge of the vessel                                      | so that it will float free if the vessel sinks                             |  |
| 4 | 228 | A | Which is the most serious type of fracture?  | Compound   | Greenstick   | Closed  | Crack  |  |
| 4 | 229 | D | Fuel oil tank vents are fitted with a screen which will stop _____.  | oil from flowing out of the tank vent  | air from entering the tank vent  | vapors from leaving the tank vent   | flames on deck from entering the tank vent                                 |  |
| 4 | 230 | D | Initial stability of a vessel may be improved by _____.  | removing loose water   | adding weight low in the vessel  | closing crossover valves between partly filled double bottom tanks                          | All of the above   |  |

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| 4 | 231 | B | The Coast Guard inspection required before a Certificate of Inspection can be issued is conducted_____.   | when deemed necessary by the Regional Inspection Center          | after you apply in writing to the nearest Officer in Charge of Marine Inspection (OCMI) | at random from a Coast Guard patrol boat  | after a formal complaint is filed with the OCMI                           |  |
| 4 | 232 | A | You are tending the lifeline of a person who has entered a compartment wearing a breathing apparatus. How many tugs of the lifeline mean "Are you all right"? | One  | Two   | Three   | Four  |  |
| 4 | 233 | C | Most enclosed lifeboats will right themselves after capsizing IF the _____.   | lower ballast tanks are filled with water                        | fuel tanks are not less than half full  | passengers are strapped to their seats  | sea anchor is deployed to windward  |  |
| 4 | 234 | B | What is the meaning of the flashing light signal "D0910"?   | Date September 10  | Date October 9  | Distance 910 miles  | Longitude 9°10'   |  |
| 4 | 236 | C | What is the maximum number of sleeping accommodations a barge may have before it is required to have fire pumps, hydrants, hose, and nozzles installed?       | 5  | 8   | 12  | 15  |  |
| 4 | 238 | B | Unless there is danger of further injury, a person with a compound fracture should not be moved until bleeding is controlled and _____.                       | the bone has been set  | the fracture is immobilized   | radio advice has been obtained  | the wound has been washed   |  |
| 4 | 239 | D | Which statement about the free surface correction is TRUE?  | It is added to GM at light drafts and subtracted at deep drafts. | It is increased if the slack tank is not on the centerline.                             | It is decreased if the slack tank is below the KG of the vessel.                                  | The correction decreases as the draft increases due to loading dry cargo. |  |
| 4 | 240 | D | According to 46 CFR Subchapter T the definition of a ferry includes vessels that _____.   | operate in other than ocean or coastwise service                 | have provisions only for deck passengers, vehicles, or both                             | operate on a short run on a frequent schedule between two points over the most direct water route | All of the above  |  |
| 4 | 241 | A | The signal L1210 means the _____.   | latitude is 12°10'   | longitude is 12°10'   | GMT is 1210   | zone time is 1210   |  |
| 4 | 242 | C | You are in a tank wearing the self-contained breathing apparatus and you desire to return topside. How many tugs of the lifeline mean to take up the slack?   | One  | Two   | Three   | Four  |  |
| 4 | 244 | D | A vessel is flying the signal "BJ-1" from her starboard halyard. The signal means "_____."  | an aircraft is ditched in position indicated                     | the aircraft is still afloat  | there is no danger of explosion   | an aircraft is circling over an accident                                  |  |

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| 4 | 245 | B | Storage batteries should be charged in a well ventilated area because _____.   | they generate heat  | they emit hydrogen   | of the toxic fumes they emit  | they recharge faster in a well ventilated space  |  |
| 4 | 246 | A | On a vessel of 125,000 GT on an international voyage, how many international shore connection flange(s) must be provided?  | 1   | 2  | 3   | 4  |  |
| 4 | 247 | D | During a stability test on a small passenger vessel _____.   | the vessel must be moored snugly  | each tank must be partially full to show it does not leak                                    | all dunnage, tools, and extraneous items are secured                        | water under vessel must be deep enough to prevent grounding  |  |
| 4 | 248 | D | You are treating a shipmate with a compound fracture of the lower arm. Which action should you take?   | Apply a tourniquet to control bleeding then align the bones and splint. | Apply traction to the hand to keep the bones in line, splint, and apply a pressure dressing. | Force the ends of the bones back into line, treat the bleeding, and splint. | Apply a bulky, sterile, pressure dressing to control bleeding, then apply a temporary splint, and obtain medical advice. |  |
| 4 | 249 | D | Large quantities of gas in the shale shaker area may be an indication of _____.  | a break in the riser system   | low formation pressure   | a break in the drill string   | high formation pressure  |  |
| 4 | 250 | B | Which will be a result of removing on-deck containers?   | KG will increase  | Metacentric height will increase   | KB will increase  | Reserve buoyancy will decrease   |  |
| 4 | 251 | A | Free communication effect is in direct proportion to _____.  | length and width of space   | length of space only   | width of space only   | neither length nor width   |  |
| 4 | 252 | C | What, when removed, will result in the extinguishment of a fire?   | Nitrogen  | Sodium   | Oxygen  | Carbon dioxide   |  |
| 4 | 254 | A | If you wanted to ask a nearby vessel if he had a doctor on board, you would hoist the flag signal _____.   | AM  | AL   | AN 1  | MA   |  |
| 4 | 255 | C | You are towing a 1000 gross ton gasoline tank barge. Regulations say that cargo tank hatches, ullage holes, and Butterworth plates may remain open without flame screens ONLY _____. | if the barge is towed on a hawser astern                                | if an approved type B-II fire extinguisher is provided                                       | when the open tanks are gas free  | for periods not to exceed five minutes   |  |
| 4 | 256 | B | What is the minimum number of fire pumps required on a cargo vessel of 2,000 GT?   | 1   | 2  | 3   | 4  |  |
| 4 | 257 | C | Which vessel greater than 100 GT is NOT required to have an EPIRB.   | A sailing vessel  | A fishing vessel   | A non self-propelled vessel in tow  | A towing vessel  |  |
| 4 | 258 | D | In any major injury to a person, first aid includes the treatment for the injury and _____.  | application of CPR  | removal of any foreign objects   | administration of oxygen  | for traumatic shock  |  |
| 4 | 259 | C | What does NOT affect the value of the free surface correction?   | Width of the tank   | Length of the tank   | Registered tonnage  | Specific gravity of the liquid in the tank   |  |



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| 4 | 261 | A | A person who willfully violates safety regulations may be fined up to \$(SA)5,000 and _____.   | imprisoned for up to a year             | imprisoned for up to five years                              | forbidden to work in the fishing industry         | no other penalty may be applied                                     |  |
| 4 | 262 | B | Which fire detection system is actuated by sensing a heat rise in a compartment?   | Manual fire detection system            | Automatic fire detection system                              | Smoke detection system                            | Watchman's supervisory system                                       |  |
| 4 | 264 | B | While using the International Code of Signals, if the receiving station can distinguish the flag signal of the transmitting station, but cannot understand the meaning of it, the station can hoist the flag signal _____. | ZP                                      | ZL   | ZR  | ZK  |  |
| 4 | 265 | D | The term "discharge", as it applies to the pollution regulations, means _____.   | spilling                                | leaking  | pumping   | All of the above  |  |
| 4 | 266 | A | What is the minimum number of fire pumps required on a cargo vessel of 900 GT?   | 1                                       | 2  | 3   | 4   |  |
| 4 | 267 | D | Which type of EPIRB must each ocean-going ship carry?  | Class A                                 | Class B  | Class C   | Category 1  |  |
| 4 | 268 | C | What is NOT a treatment for traumatic shock?   | Keep the patient warm but not hot.      | Have the injured person lie down.                            | Massage the arms and legs to restore circulation. | Relieve the pain of the injury.                                     |  |
| 4 | 269 | C | To remedy a leaking fire hose connection at the hydrant, secure the valve and _____.   | replace the gasket in the male coupling | reduce fire pump pressure                                    | replace the gasket in the female coupling         | rethread the male coupling  |  |
| 4 | 270 | A | When cargo is shifted from the lower hold to the main deck the _____.  | center of gravity will move upwards     | GM will increase   | center of buoyancy will move downward             | All of the above  |  |
| 4 | 271 | A | A fishing vessel casualty must be reported to the Coast Guard if it involves _____.  | loss of life                            | an injury requiring only first aid                           | \$(SA)10,000 in property damage                   | loss of equipment which doesn't reduce the vessel's maneuverability |  |
| 4 | 272 | B | Fire alarm system thermostats are actuated by _____.   | smoke sensors                           | the difference in thermal expansion of two dissimilar metals | pressure loss due to air being heated             | an electric eye which actuates when smoke interferes with the beam  |  |
| 4 | 274 | B | The flag hoist 62.2 would be sent as pennant 6, pennant 2, _____.  | answering pennant, first substitute     | answering pennant, second substitute                         | space, second substitute                          | answering pennant, third substitute                                 |  |
| 4 | 275 | C | When cleaning up an oil spill in U.S. waters you must obtain the approval of the Federal On-Scene Coordinator before using _____.  | skimmers                                | straw  | chemical agents                                   | sawdust   |  |
| 4 | 276 | B | For a cargo vessel of 1,000 GT or over, on an international voyage, the required minimum pitot tube pressure from the two highest outlets when two fire pumps are operating simultaneously is approximately _____.         | 35 psi                                  | 50 psi   | 70 psi  | 100 psi   |  |

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| 4 | 277 | B | The vessel's Emergency Position Indicating Radio beacon (EPIRB) must be tested _____.   | weekly  | monthly   | every 2 months                              | every 3 months   |  |
| 4 | 278 | B | What is a treatment for traumatic shock?  | Administer CPR.   | Administer fluids.  | Open clothing to allow cooling of the body. | Keep the victim in a sitting position.   |  |
| 4 | 280 | D | In the regulations that apply to small passenger vessels an "open boat" is a vessel _____.  | that is used for charter fishing or tours and is open to the public | on which gambling and consumption of alcoholic beverages is permitted | that is docked and open for visitors        | that is not protected from entry of water by means of a complete weathertight deck |  |
| 4 | 281 | C | The gross weight of a fully charged CO2 bottle in a fixed CO2 system is 220 lbs. When the bottle is empty it weighs 120 lbs. What is the minimum acceptable gross weight of the CO2 bottle before it should be recharged by the manufacturer? | 200 lbs   | 205 lbs   | 210 lbs                                     | 220 lbs  |  |
| 4 | 282 | B | The difference in water spray pattern between the high-velocity tip and low-velocity applicator used with the all-purpose nozzle is due to _____.   | a difference in water pressure                                      | the method of breaking up the water stream                            | the length of the applicator                | All of the above   |  |
| 4 | 283 | D | Spreading oil on the open sea has the effect of _____.  | diminishing the height of the seas                                  | lengthening the distance between successive crests                    | increasing the height of the seas           | preventing the wave crests from breaking   |  |
| 4 | 284 | B | What is the correct interpretation of the flag hoist G, 4, 2, 1, first substitute.  | G421G   | G4214   | G421G421                                    | G4211  |  |
| 4 | 285 | D | The use of sinking and dispersing chemical agents for removal of surface oil is _____.  | the most common method used in the United States                    | too expensive for common use  | generally safe to sea life                  | authorized only with prior approval of the Federal On-Scene Coordinator            |  |
| 4 | 286 | B | On cargo vessels, the discharge of the required quantity of carbon dioxide into any "tight" space shall be completed within _____.  | 1 minute  | 2 minutes   | 4 minutes                                   | 6 minutes  |  |
| 4 | 287 | C | The Master shall insure that the Emergency Position Indicating Radio beacon (EPIRB) is _____.   | secured inside the wheelhouse                                       | tested annually   | tested monthly                              | secured in the emergency locker  |  |
| 4 | 288 | C | A negative metacentric height _____.  | will always cause a vessel to capsize                               | always results from off-center weights                                | should always be immediately corrected      | All of the above are correct   |  |
| 4 | 289 | C | You are at the helm of a sailing vessel under sail on the starboard tack, close hauled, and you are instructed to "head up". You should _____.  | turn the wheel to port if you are steering with a wheel             | push the tiller to starboard if you are steering with a tiller        | turn the rudder to starboard                | All of the above are correct   |  |

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| 4 | 290 | A | What will happen when cargo is shifted from the main deck into the lower hold of a vessel? | The GM will increase.   | The metacenter will move upward.   | The center of buoyancy will move upward.   | All of the above   |  |
| 4 | 291 | D | A Certificate of Inspection issued to a small passenger vessel describes _____.            | the minimum fire extinguishing equipment, lifejackets, survival and rescue craft she must carry | the name of the managing operator  | any special conditions or restrictions on her operation  | All the above  |  |
| 4 | 292 | D | High-velocity fog _____.   | is a finer, more diffuse water spray than low-velocity fog                                      | requires that the water pressure be no greater than 60 psi   | produces an effective fog pattern no more than 6 feet beyond the nozzle                        | extinguishes a fire by absorbing heat and reducing the supply of oxygen            |  |
| 4 | 293 | A | Which statement is TRUE concerning life jackets which are severely damaged?                | They should be replaced.  | They must be tested for buoyancy before being continued in use.  | They can be repaired by a reliable seamstress.   | They can be used for children.   |  |
| 4 | 294 | C | If a receiving station cannot distinguish a signal sent by flag hoist it should _____.     | hoist ZQ  | hoist ZL   | keep the answering pennant at the dip  | raise and lower the answering pennant  |  |
| 4 | 295 | B | The preferred type of pollution control for oil spills on the water is(are) _____.         | straw   | booms  | skimmers   | chemical dispersants   |  |
| 4 | 296 | D | In weighing CO2 cylinders, they must be recharged if weight loss exceeds _____.            | 10% of weight of full bottle  | 15% of weight of full bottle   | 20% of weight of charge  | 10% of weight of charge  |  |
| 4 | 297 | B | Which information is NOT required to be posted in or near the wheelhouse?                  | Stopping time and distance from full speed while maintaining course with minimum rudder         | A diagram of advance and transfer for turns of 30°, 60°, 90° and 120° at full speed with maximum rudder and constant power | For vessels with a fixed propeller, a table of shaft RPMs for a representative range of speeds | Operating instructions for change-over procedures for remote steering gear systems |  |
| 4 | 298 | A | Which is NOT a symptom of traumatic shock?   | Slow, deep breathing  | Pale, cold skin  | Weak, rapid pulse  | Restlessness and anxiety   |  |

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| 4 | 299 | B | Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?   | An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant. | There is no cost to the ship or owner for messages sent within the AMVER system. | An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore. | The AMVER system does not reduce the time lost for vessels responding to calls for assistance. |
| 4 | 300 | D | In the small passenger vessel regulations a coastwise route is defined as one that is _____.   | not more than 50 statute miles from shore in the Gulf of Mexico   | on ocean waters more than 200 nautical miles from shore in the Gulf of Alaska    | not more than 20 statute miles from the nearest safe harbor in the Pacific Ocean   | not more than 20 nautical miles offshore in the ocean  |
| 4 | 301 | A | Which factor has the greatest effect on the value of the free surface correction?  | The width of the tank   | The length of the tank   | The draft of the vessel  | The specific gravity of the liquid in the tank   |
| 4 | 302 | B | If you are fighting a fire below the main deck of your vessel, which action is most important concerning the stability of the vessel?                                    | Shutting off electricity to damaged cables  | Pumping fire-fighting water overboard  | Maneuvering the vessel so the fire is on the lee side  | Removing burned debris from the cargo hold   |
| 4 | 303 | D | Plastic material may be thrown overboard from a vessel which is _____.   | 25 miles from shore   | 12 miles from shore  | 3 miles from shore   | None of the above are correct.   |
| 4 | 304 | A | What is the correct interpretation of the flag hoist F 2 1 3 second substitute?  | F2131   | F2132  | F213213  | F213F213   |
| 4 | 305 | C | It is generally NOT allowed to clean up an oil spill by using _____.   | a boom  | suction equipment  | chemical agents  | skimmers   |
| 4 | 306 | A | In areas where CO2 piping is installed, such piping may not be used for any other purpose EXCEPT _____.  | in connection with the fire-detecting system  | in connection with the water sprinkler system                                    | to ventilate the space   | to run the emergency wiring to the space   |
| 4 | 307 | A | Your ship is returning to New Orleans from a foreign voyage and carrying a bulk cargo of anhydrous ammonia. You must notify the Captain of the Port, New Orleans, _____. | at least 96 hours before entering port  | if you are not participating in the USMER system                                 | only if you have a hazardous condition aboard  | only if your arrival will vary more than six hours from your ETA reported to AMVER             |
| 4 | 308 | B | A person being treated for shock should be wrapped in warm coverings to _____.   | increase body heat  | preserve body heat   | avoid self-inflicted wounds caused by spastic movement   | protect the person from injury during transportation   |

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| 4 | 310 | D | A vessel's light draft displacement is 7400 tons. The center of gravity at this draft is 21.5 ft. above the keel. The following weights are loaded: (WT. #1-450 tons, VCG #1-17.4 ft.; WT. #2-220 tons, VCG #2-11.6 ft.; WT. #3-65 tons, VCG #3-7.0 ft.). The new CG above the keel is _____. | 14.7 feet  | 17.8 feet   | 18.7 feet                                      | 20.9 feet   |
| 4 | 311 | B | Spontaneous ignition can result from _____.   | an unprotected drop-light bulb   | careless disposal or storage of material  | smoking in bed                                 | worn electrical wires on power tools                                    |
| 4 | 312 | B | The spray of water in low-velocity fog will have _____.   | greater range than high-velocity fog   | lesser range than high-velocity fog   | about the same range as high-velocity fog      | greater range than a solid stream                                       |
| 4 | 313 | D | Kapok life jackets should NOT be _____.   | stowed near open flame or where smoking is permitted                                 | used as seats, pillows, or foot rests   | left on open decks                             | All of the above  |
| 4 | 314 | B | The flag hoist 1.33 would be sent as _____.   | 1, answer pennant, 3, first substitute   | 1, answer pennant, 3, second substitute   | 1, answer pennant, 3, third substitute         | N, 1, answer pennant, 3   |
| 4 | 315 | A | The maximum number of passengers a "T-Boat" may carry _____.  | is stated on the vessel's Certificate of Inspection                                  | is the number authorized in the Navigation Rules  | depends on the number of lifejackets you carry | is the number authorized by your license                                |
| 4 | 316 | C | The space containing the cylinders for the carbon dioxide(CO2) fire extinguishing system must be designed to preclude an anticipated ambient temperature over _____.  | 80°F   | 95°F  | 130°F  | 150°F   |
| 4 | 317 | B | Your vessel will be entering the navigable waters of the United States. You are required by regulations to _____.   | test the primary and secondary steering systems no more than 8 hours before entering | correct the charts of the area to be transited using the Notice(s) to Mariners or foreign equivalent reasonably available | have a copy of Radio Navigational Aids         | check the magnetic compass for the correct deviation                    |
| 4 | 318 | C | The best treatment for preventing traumatic shock after an accident is to _____.  | have the victim exercise to increase circulation                                     | keep the victim from electrical equipment   | keep the victim warm and dry while lying down  | apply ice packs and avoid excitement                                    |
| 4 | 319 | C | Foam is effective in combating which class(es) of fire?   | A  | B   | A and B  | B and C   |
| 4 | 320 | B | As the displacement of a vessel increases, the detrimental effect of free surface _____.  | increases  | decreases   | remains the same                               | may increase or decrease depending on the fineness of the vessel's form |

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| 4 | 321 | D | A signal indicating Greenwich mean time would be preceded with _____.   | a code hoist to indicate Greenwich mean time to follow                                | the letter G   | the letters GT   | the letter Z  |  |
| 4 | 322 | D | A definite advantage of using water as a fire extinguishing agent is its characteristic of _____.   | alternate expansion and contraction as water in a liquid state becomes a vapor        | absorption of smoke and gases as water is converted from a liquid to a vapor | rapid contraction as water is converted from a liquid to a vapor | rapid expansion as water absorbs heat and changes to steam                |  |
| 4 | 323 | C | You must make a written application to obtain or renew your "T" boat's Certificate of Inspection _____.   | on form CG-835  | at the shipyard where you are hauled out                                     | on form CG-3752  | every time your boat is hauled out  |  |
| 4 | 324 | B | The national distress, safety, and calling frequency is channel _____.  | 13  | 16   | 18   | 22  |  |
| 4 | 325 | A | For the purposes of cargo oil containment, the fixed container under the manifold of an eight-inch loading line must hold a minimum of _____.   | three barrels   | four barrels   | six barrels  | eight barrels   |  |
| 4 | 326 | B | CO2 cylinders, which protect the small space in which they are stored must _____.   | NOT contain more than 200 pounds of CO2   | be automatically operated by a heat actuator                                 | have an audible alarm  | All of the above  |  |
| 4 | 327 | D | The maneuvering information required to be posted in the wheelhouse must be based on certain conditions. Which of the following is NOT one of these conditions?   | The hull must be clean.   | There must be calm weather-wind 10 knots or less and a calm sea.             | There must be no current.  | The depth of the water must be at least one and one-half times the draft. |  |
| 4 | 328 | B | A man has suffered a burn on the arm. There is extensive damage to the skin with charring present. How is this injury classified using standard medical terminology?  | Dermal burn   | Third-degree burn  | Major burn   | Lethal burn   |  |
| 4 | 329 | A | Which statement about the free surface effect is TRUE?  | It has the same affect on initial stability whether the tank is 75% full or 25% full. | The free surface effect usually increases at angles of heel above 25°.       | The effect increases if the tank is off the centerline.          | The effect can be reduced by shifting weights vertically.                 |  |
| 4 | 330 | C | Many vessels are provided with flume tanks, which also have a dump tank located under the flume tanks. In the event the ship is damaged, you could dump the flume tanks into the dump tank which would _____. | reduce the free surface effect and raise the KG                                       | not have any effect on free surface and raise the KG                         | reduce the free surface effect and lower the KG                  | not have any effect on free surface and lower the KG                      |  |

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| 4 | 331 | D | One of the limitations of foam as an extinguishing agent is that foam _____.   | cannot be made with salt water   | is heavier than oil and sinks below its surface   | is corrosive and a hazard to fire fighters  | conducts electricity  |  |
| 4 | 332 | B | When using a high-velocity fog stream in a passageway, the possibility of a blow back must be guarded against. Blow back is most likely to occur when _____.                     | pressure builds up in the nozzle which causes a surge of water             | the only opening in a passageway is the one from which the nozzle is being advanced         | pressure in the fire hose drops below 100 psi   | a bulkhead collapses due to heat and pressure   |  |
| 4 | 333 | B | Which statement is TRUE concerning life preservers (Type I personal flotation devices)?  | Buoyant vests may be substituted for life jackets.                         | Life preservers are designed to turn an unconscious person's face clear of the water.       | Life preservers must always be worn with the same side facing outwards to float properly. | Lightly stained or faded life jackets will fail in the water and should not be used.              |  |
| 4 | 335 | A | Your vessel is carrying 24,000 barrels of oil for discharge. The cargo hoses have an inside diameter of eight inches. The container around the loading manifold must hold _____. | three barrels  | four barrels  | six barrels   | eight barrels   |  |
| 4 | 336 | B | Carbon dioxide cylinders which protect machinery spaces, paint lockers and tanks may be located within those spaces when the amount of carbon dioxide does not exceed _____.     | 150 lbs  | 300 lbs   | 450 lbs   | 600 lbs   |  |
| 4 | 338 | C | A man has a burn on his arm. There is reddening of the skin, blistering, and swelling. Using standard medical terminology this is a _____.                                       | major burn   | secondary burn  | second-degree burn  | blister burn  |  |
| 4 | 339 | C | If a firefighting situation calls for low-velocity fog you would _____.  | order the engine room to reduce pressure on the fire pump                  | put the lever on an all-purpose fire nozzle all the way forward                             | attach a low-velocity fog applicator with the nozzle shut down                            | put the lever on an all-purpose fire nozzle all the way back                                      |  |
| 4 | 340 | B | Which statement about the free surface correction is TRUE?   | It is added to the uncorrected GM to arrive at the corrected available GM. | It is obtained by dividing the free surface moments by 12 times the volume of displacement. | It is obtained by dividing the total free surface by the total vertical moments.          | It is subtracted from the total longitudinal moments before dividing by displacement to find LCG. |  |
| 4 | 341 | A | The Master or other vessel representative must contact the nearest Coast Guard Marine Safety Office within five days of a(n) _____.  | grounding  | injury which requires first aid   | accident which requires \$(SA)2500 of repairs   | All of the above are correct.   |  |

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| 4 | 342 | B | Every injury aboard a commercial fishing industry vessel must be reported to the _____.  | Coast Guard   | vessel owner or owner's agent  | Occupational Safety and Health Administration                    | National Fisheries Service                         |  |
| 4 | 343 | D | An emergency sea anchor may be constructed by using _____.   | a boat bucket   | an air tank filled with water  | an oar and canvas weighted down                                  | All of the above                                   |  |
| 4 | 345 | B | A 100-GT vessel, constructed before July 1, 1974, is loading diesel fuel. What is the minimum capacity of the drip pans required for placement under or around each fuel tank vent, overflow, and fill pipe? | 1 gallon  | 5 gallons  | 1 barrel   | 2 barrels  |  |
| 4 | 346 | D | The supply of carbon dioxide used in the fixed extinguishing system aboard a cargo vessel MUST be at least sufficient for _____.   | all the spaces of a vessel  | all cargo spaces   | the engine room and largest cargo space                          | the space requiring the largest amount             |  |
| 4 | 347 | B | The danger of a charged hose left unattended on deck with the nozzle open is _____.  | the hose could burst  | the nozzle end will whip about causing damage or injury                  | water damage to vessel's cargo or structure                      | personnel might trip over the hose                 |  |
| 4 | 348 | D | A man has suffered a burn on the arm. There is a reddening of the skin but no other apparent damage. Using standard MEDICAL terminology, this is a _____.  | Minor burn  | Superficial burn   | Extremity burn   | First-degree burn                                  |  |
| 4 | 349 | C | A marine radar system for surface navigation must be fitted on all ocean or coastwise vessels of over _____.   | 1,400 GT  | 1,500 GT   | 1,600 GT   | 1,700 GT   |  |
| 4 | 350 | C | The most detrimental effect on initial stability is a result of liquids _____.   | flowing from side to side within the vessel                         | flowing from fore to aft within a vessel                                 | flowing in and out of a holed wing tank                          | pocketing in a slack tank as a vessel heels        |  |
| 4 | 351 | D | What is the meaning of the signal "G1325"?   | The GMT is 1325.  | The latitude is 13°25'.  | The zone time is 1325.   | The longitude is 13°25'.                           |  |
| 4 | 352 | D | What is an advantage of water fog or water spray over a straight stream of water in fighting an oil fire?  | It has a smothering effect on the fire.                             | It requires less water to remove the same amount of heat.                | It gives more protection to fire fighting personnel.             | All of the above                                   |  |
| 4 | 353 | B | When a sea anchor is used in landing stern first in a heavy surf, sternway is checked by _____.  | slacking the tripping line and towing the sea anchor from the stern | slacking the tripping line and towing the sea anchor by the holding line | towing with the tripping line and leaving the holding line slack | towing the apex end forward with the tripping line |  |
| 4 | 354 | C | The distress message of a ship should include considerable information which might facilitate the rescue. This information should _____.   | ALWAYS be included in the initial distress message                  | be sent to a Coast Guard station FIRST                                   | be transmitted as a series of short messages, if time allows     | include the vessel's draft                         |  |



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| 4 | 355 | A | The center of flotation of a vessel is the point in the waterplane _____.  | about which the vessel lists and trims                     | which coincides with the center of buoyancy               | which, in the absence of external forces, is always vertically aligned with the center of gravity | which is shown in the hydrostatic tables as VCB                                 |  |
| 4 | 356 | D | The number of pounds of carbon dioxide required for each cargo space on a cargo vessel is equal to _____.  | the gross volume of the space in cubic feet divided by 100 | one pound of CO2 per cubic foot of space                  | one pound of CO2 per square foot of deck area   | the gross volume of the space in cubic feet divided by 30                       |  |
| 4 | 357 | B | The operator of a vessel's radiotelephone must hold at least a _____.  | third class radiotelegraph operator certificate            | restricted radiotelephone operator permit                 | general radiotelephone operator license   | mates license   |  |
| 4 | 358 | C | When treating a person for third-degree burns, you should _____.   | submerge the burn area in cold water                       | make the person stand up and walk to increase circulation | cover the burns with thick, sterile dressings   | break blisters and remove dead tissue   |  |
| 4 | 359 | B | A vessel is floating in saltwater at a mean draft of 14 feet. The length of the vessel is 450 feet, beam 50 feet, TPI 45. The BM is 16.34 feet. What is the vessel's displacement in tons? | 4,500 tons   | 6,000 tons  | 7,560 tons  | 7,900 tons  |  |
| 4 | 360 | C | The greatest effect on stability occurs from loose liquids flowing _____.  | from side to side in the tanks of the vessel               | from fore to aft in the tanks of a vessel                 | in and out of a vessel that is holed in a wing tank   | in and out of a vessel that is holed in a peak tank                             |  |
| 4 | 361 | C | What can be used to measure the percentage of oxygen inside a chain locker?  | Flame safety lamp  | Combustible gas indicator                                 | Oxygen indicator  | H2S meter   |  |
| 4 | 362 | C | Water fog from an all-purpose nozzle may be used to _____.   | fight an electrical fire                                   | fight a magnesium fire                                    | eliminate smoke from a compartment  | All of the above  |  |
| 4 | 363 | B | You are in a lifeboat in a heavy sea. Your boat is dead in the water and unable to make way. To prevent broaching, you should _____.   | take no action, broaching is recommended in a heavy sea    | put out the sea anchor                                    | put out the sea painter   | fill the bottom of the boat with about one foot of water to make it ride better |  |
| 4 | 365 | A | What is the minimum fuel-oil discharge-containment needed for a 100 gross ton vessel constructed after June 30, 1974?  | At least 5 gallons   | At least 1 barrel   | At least 2 barrels  | At least 3 barrels  |  |
| 4 | 366 | C | You have determined that a cargo space on a freight vessel is 45 feet by 36 feet by 62 feet. How many pounds of carbon dioxide is required for this space?                                 | 1674   | 2511  | 3348  | 5022  |  |
| 4 | 367 | B | A ship's radiotelephone station license is issued by the _____.  | U.S. Coast Guard   | Federal Communications Commission                         | Radio Technical Commission for Marine Services  | Maritime Mobile Service Commission  |  |

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| 4 | 369 | C | A cargo vessel of 9,000 tons displacement is carrying a slack deep tank of molasses (SG 1.4). The tank measures 20 feet long and 30 feet wide. What will be the reduction in metacentric height due to free surface, with the vessel floating in sea water (SG 1.026)? | .142 ft.  | .177 ft.  | .195 ft.  | .212 ft.   |         |
| 4 | 370 | C | What is the principal danger from the liquid in a half full tank onboard a vessel?   | Corrosion from the shifting liquid                                      | Rupturing of bulkheads from the shifting liquid                         | Loss of stability from free surface effect                              | Holing of the tank bottom from the weight of the shifting liquid |         |
| 4 | 372 | C | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.                                     | 189 tons  | 174 tons  | 158 tons  | No loading required  | ST-0005 |
| 4 | 373 | D | Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.  | shifting the rudder constantly  | moving all personnel forward and low                                    | moving all personnel aft  | rigging a sea anchor   |         |
| 4 | 374 | B | A vessel operating outside of coastal waters must carry an automatically activated Emergency Position Indicating Radio Beacon (EPIRB) if she _____.  | does not have berthing facilities                                       | has berthing and galley facilities                                      | is a workboat and her mother ship carries an EPIRB                      | None of the above are correct.                                   |         |
| 4 | 375 | B | Fueling results in the collection of waste oil in drip pans and containers. Which is an approved method of disposing of the waste oil?   | Draining it overboard when the vessel gets underway                     | Placing it in proper disposal facilities                                | Adding sinking agents and discharging it into the water                 | Mixing it with dispersants before draining it overboard          |         |
| 4 | 376 | C | Valves on steam-smothering lines to cargo tanks shall be set with _____.   | the master control valve shut and valves to individual cargo tanks shut | the master control valve open and valves to individual cargo tanks shut | the master control valve shut and valves to individual cargo tanks open | all valves open  |         |
| 4 | 377 | B | The regulations governing the frequencies of the bridge-to-bridge radiotelephone are issued by the _____.  | Department of Transportation  | Federal Communications Commission                                       | U.S. Coast Guard  | Department of Defense  |         |
| 4 | 378 | B | The FIRST treatment for a surface burn is to _____.  | wash the burned area with a warm soap and water solution                | flood, bathe, or immerse the burned area in cold water                  | cover the burned area with talcum powder and bandage it tightly         | leave the burned area exposed to the atmosphere                  |         |
| 4 | 379 | D | Plastic material may be discharged overboard from a vessel if it is _____.   | 3 miles from shore  | 12 miles from shore   | 25 miles from shore   | None of the above  |         |

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| 4 | 380 | B | You are fighting a fire in a cargo hold on your vessel. Which action is most important concerning the stability of the vessel?   | Shutting off electricity to damaged cables   | Draining fire-fighting water and pumping it overboard   | Maneuvering the vessel so the fire is on the lee side   | Removing burned debris from the cargo hold  |  |
| 4 | 381 | B | What is the meaning of the signal "G0325"?   | The distance is 325 miles.   | The longitude is 3°25'.   | The course is 325°.   | Change course to 325°.  |  |
| 4 | 382 | A | A damaged "T-Boat" that is unable to meet the requirements of its Certificate of Inspection but is able to travel to a shipyard under its own power should _____.  | make the trip only after obtaining a "Permit to Proceed to Another Port for Repair", Form CG-948   | get underway as soon as possible  | hire a tug and pilot instead  | request an Expiration Certificate if the vessel displays a tendency to sink               |  |
| 4 | 383 | C | The purpose of the tripping line on a sea anchor is to _____.  | aid in casting off   | direct the drift of the vessel  | aid in its recovery   | maintain maximum resistance to broaching  |  |
| 4 | 385 | D | You are operating a non-ocean going vessel, how much of the accumulated oily waste must you be able to retain on board?  | 25%  | 50%   | 75%   | 100%  |  |
| 4 | 386 | D | On vessels subject to 46 CFR Subchapter T, Certification Expiration Date Stickers _____.   | are issued along with a valid Certificate of Inspection (COI) to indicate the date the COI expires | must be readily visible to each passenger prior to boarding and to patrolling Coast Guard law enforcement personnel | must be placed on glass or other smooth surfaces where they may be removed without damage to the vessel | All of the above  |  |
| 4 | 387 | D | If your vessel is equipped with a radiotelephone, what must also be aboard?  | Certificate of Inspection  | List of ship stations   | Copy of ship to shore channels  | Radio station license   |  |
| 4 | 388 | A | A victim has suffered a second-degree burn to a small area of the lower arm. What is the proper treatment for this injury?   | Immerse the arm in cold water for 1 to 2 hours, apply burn ointment, and bandage.                  | Open any blisters with a sterile needle, apply burn ointment and bandage.   | Apply burn ointment, remove any foreign material and insure that nothing is in contact with the burn.   | Immerse the arm in cold water for 1 to 2 hours, open any blister and apply burn ointment. |  |
| 4 | 389 | C | On a vessel of 9,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank tops. The hold is 20 feet long and 30 feet wide. The reduction in metacentric height is _____. | .09 feet   | .12 feet  | .14 feet  | .16 feet  |  |
| 4 | 390 | D | A tank which carries liquid is dangerous to the stability of a vessel when it is _____.  | low in the vessel  | completely empty  | completely full   | slack   |  |

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| 4 | 391 | A | Foam is a very effective smothering agent and _____.   | it provides cooling as a secondary effect                           | works well on extinguishing electrical fires   | can be used to combat combustible metal fires                              | All of the above                                    |  |
| 4 | 392 | D | What should be used to remove corrosion from the swivel on the female coupling of a fire hose?   | Bearing grease and a wire brush                                     | Talc and fine sandpaper  | Fish oil and a soft brush  | Fresh water, soap, and a stiff brush                |  |
| 4 | 393 | B | A sea anchor is _____.   | a heavy anchor with an extra long line used to anchor in deep water | a cone shaped bag used to slow down the wind drift effect                              | a pad eye to which the sea painter is made fast                            | made of wood if it is of an approved type           |  |
| 4 | 394 | A | If you are transmitting a distress message by radiotelephone you should _____.   | use English language  | always use the International Code  | preface it by the word "Interco"   | follow the transmission with the radio alarm signal |  |
| 4 | 395 | D | You are operating a 1,000 GT non-ocean going tankship. It must be equipped with _____.   | two pumps for discharging oily bilge slops                          | a fixed piping system for bilge slops with one outlet on each side of the weather deck | a means on the weather deck to stop each pump used to discharge oily waste | None of the above                                   |  |
| 4 | 396 | B | Deck foam systems, designed to protect cargo areas on tank vessels built after January 1, 1975, must have a supply of foam-producing material to operate the system at its designed rate of foam production for _____. | 15 minutes without recharging                                       | 20 minutes without recharging  | 25 minutes without recharging  | 30 minutes without recharging                       |  |
| 4 | 397 | A | The Sailing Plan, required by vessels participating in AMVER, must be sent _____.  | within a few hours before or after departure                        | prior to departure   | within 24 hours of departure   | within 12 hours of departure                        |  |
| 4 | 398 | A | For small, first-degree burns the quickest method to relieve pain is to _____.   | immerse the burn in cold water                                      | administer aspirin   | apply petroleum jelly  | apply a bandage to exclude air                      |  |
| 4 | 399 | C | What is the minimum number of people required to safely handle a 2-1/2 inch fire hose?   | 1   | 2  | 3  | 4   |  |
| 4 | 400 | B | Whenever a "T-Boat" is hauled out for repairs or alterations affecting its safety you must _____.  | provide a complete set of plans to the Commandant for review        | notify the cognizant OCMI  | schedule a full safety equipment inspection                                | Both B and C  |  |
| 4 | 401 | D | On a vessel of 12,000 tons displacement, what is the reduction in metacentric height due to free surface when a tank 60 feet long and 60 feet wide is partially filled with water?                                     | 2.30 feet   | 2.43 feet  | 2.48 feet  | 2.57 feet   |  |

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| 4 | 402 | D | To lubricate the swivel or remove corrosion from a fire hose coupling, you should use _____.   | glycerine  | graphite   | kerosene  | fresh water and soap   |  |
| 4 | 403 | C | Due to the shape of the sea anchor, the best way to haul it back aboard is by _____.   | hauling in on the anchor line as you would any anchor                    | getting all hands to assist  | its trip line   | cutting the line, as you cannot haul it back in                  |  |
| 4 | 405 | A | A vessel in ocean service that does not have an approved means of processing oily bilge slops or oily ballast must have _____.   | a fixed piping system for ballast discharge to a reception facility      | a discharge outlet for the ballast system on each side of the weather deck   | one portable adapter for a shore connection to the ballast line       | All of the above   |  |
| 4 | 406 | B | A SOLAS passenger ship safety certificate is required on all _____.  | T-Boats carrying more than 49 passengers for hire                        | T-Boats that carry more than 12 passengers on an international voyage  | T-Boats carrying more than 150 passengers for hire                    | large excursion vessels on lakes, bays, sounds, and river routes |  |
| 4 | 435 | C | If an emergency pump control is used as the emergency shutdown on a tank vessel, it must _____.  | stop the flow of oil at the main deck manifold                           | prevent the oil from leaving the shore facility  | prevent the oil from siphoning through the pump                       | None of the above  |  |
| 4 | 437 | D | On small passenger vessels bunks installed in overnight passenger accommodation spaces _____.  | must be no less than 74" long and 24" wide with 24" of clear space above | must not be located more than 3' high, fitted with a suitable aid to access bunks more than 5' above deck with suitable aids to access bunks more than 5' above deck | must be immediately adjacent to an aisle leading to a means of escape | All of the above   |  |
| 4 | 438 | A | A crew member has suffered frostbite to the toes of both feet. You should _____.   | immerse the feet in warm water   | warm the feet with a heat lamp   | warm the feet at room temperature                                     | rub the feet   |  |
| 4 | 439 | B | Fixed CO2 systems would not be used on crew's quarters or _____.   | the paint locker   | spaces open to the atmosphere  | cargo holds   | the engine room  |  |
| 4 | 440 | A | You are making a heavy lift with the jumbo boom. Your vessel displaces 8390 T. The 40 ton weight is on the pier and its center is 55' to starboard of the centerline. The head of the boom is 110' above the base line and the center of gravity of the lift when stowed on deck will be 45' above the base line. As the jumbo boom takes the strain the ship lists to 3.5°. What is the GM with the cargo stowed? | 4.58 feet  | 4.27 feet  | 3.93 feet   | 3.68 feet  |  |

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|---|-----|---|--|---|--|--------------------------------------|--|--|
| 4 | 441 | C | Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.  | moving all personnel aft                              | constantly shifting the rudder                       | rigging a sea anchor                 | moving all personnel forward and low   |  |
| 4 | 442 | A | On the all-purpose nozzle, the position of the valve when the handle is all the way forward is _____.  | shut  | fog  | solid stream                         | spray  |  |
| 4 | 444 | B | A call between any two ship stations on an intership working frequency shall have a maximum duration of _____.   | 2 minutes   | 3 minutes  | 4 minutes                            | 5 minutes  |  |
| 4 | 446 | C | The number of fire axes required to be carried on a cargo vessel of 14,000 GT and on an international voyage is _____.   | 4   | 6  | 8                                    | 12   |  |
| 4 | 447 | C | According to the "Vessel Bridge-to-Bridge Radiotelephone Act", what is NOT required in the radiotelephone log?   | Distress and alarm signals transmitted or intercepted | Times of beginning and end of watch period           | Routine navigational traffic         | Daily statement about the condition of the required radiotelephone equipment |  |
| 4 | 448 | D | Treatment of frostbite includes _____.   | rubbing affected area with ice or snow                | rubbing affected area briskly to restore circulation | wrapping area tightly in warm cloths | warming exposed parts rapidly  |  |
| 4 | 449 | B | On a vessel of 9,000 tons displacement there are two slack deep tanks of palm oil (SG .86). Each tank is 40 feet long and 30 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)? | .27 ft  | .48 ft   | .57 ft                               | .74 ft   |  |
| 4 | 450 | D | Which type of portable fire extinguisher is best suited for putting out a Class D fire?  | Dry chemical  | CO2  | Foam                                 | Dry powder   |  |
| 4 | 452 | D | When the handle of an all-purpose nozzle is in the forward position, the nozzle will _____.  | produce high-velocity fog                             | produce low-velocity fog                             | produce a straight stream            | shut off the water   |  |
| 4 | 453 | B | You must shift a weight from the upper 'tween deck to the lower hold. This shift will _____.   | make the vessel more tender                           | make the vessel stiffer                              | increase the rolling period          | decrease the metacentric height  |  |
| 4 | 454 | B | Marine Operators, when calling a ship on VHF-FM radiotelephone, normally call on channel _____.  | 13  | 16   | 19                                   | 23   |  |

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| 4 | 455 | A | Fuel for use on a vessel (300 GT or more constructed before July 1, 1974) may be carried in independent tanks forward of a collision bulkhead if the _____. | tanks were designated, installed, or constructed for fuel oil carrying before July 1, 1974 | tank is 18 inches inboard of the hull structure            | shell of the tank is of the same thickness or greater than that of the vessel's hull | fuel has a flash point above 180°F                                 |  |
| 4 | 456 | C | On a vessel of 900 GT, the minimum number of fire axes required is _____.   | 2  | 4  | 6  | 8  |  |
| 4 | 457 | D | According to the "Vessel Bridge-to-Bridge Radiotelephone Act", your radiotelephone log must contain _____.  | a record of all routine calls  | a record of your transmissions only                        | the home address of the vessel's Master or owner                                     | a summary of all distress calls and messages                       |  |
| 4 | 459 | B | What is the minimum number of people required to safely handle a 1-1/2 inch fire hose?  | 1  | 2  | 3  | 4  |  |
| 4 | 460 | D | A vessel of not more than 65 feet in length must have a collision bulkhead if it carries more than _____.   | 6 passengers   | 12 passengers  | 36 passengers  | 49 passengers  |  |
| 4 | 462 | A | When the handle of an all-purpose nozzle is in the vertical position and without an applicator, the all-purpose nozzle will _____.                          | produce high-velocity fog  | produce low-velocity fog                                   | produce a straight stream  | shut off the water   |  |
| 4 | 463 | D | When water-cooled engines are installed on small passenger vessels, the cooling system _____.   | pump must operate whenever the engine is operating   | must have a suitable hull strainer in the raw water intake | may use a closed fresh water system  | All of the above   |  |
| 4 | 464 | D | You are making a telephone call ship-to-shore using the VHF-FM service. You can tell that the working channel is busy if you hear _____.                    | speech   | signaling tones  | a busy signal  | All of the above   |  |
| 4 | 465 | A | A cargo hose is marked with the _____.  | maximum working pressure   | bursting pressure  | safety relief valve setting  | maximum temperature  |  |
| 4 | 466 | D | Deficient oxygen content inside a chain locker can be detected with _____.  | litmus paper   | a combustible gas indicator                                | an oxygen breathing apparatus  | an oxygen indicator  |  |
| 4 | 467 | A | Which is the required location of the radiotelephone station aboard a vessel to which the "Vessel Bridge-to-Bridge Radiotelephone Act" applies?             | On the bridge or in the wheelhouse   | In a separate radio compartment                            | Adjacent to the main power source  | As high as possible on the vessel                                  |  |
| 4 | 470 | B | A squeeze-grip type carbon-dioxide portable fire-extinguisher has been partially discharged. It should be _____.  | replaced in its proper location if weight loss is no more than 15%                         | labeled empty and recharged as soon as possible            | replaced in its proper location regardless of weight                                 | replaced in its proper location if weight loss is no more than 25% |  |
| 4 | 471 | C | In how many locations must lifeboats be installed on a mobile offshore drilling unit?   | 4  | 3  | 2  | 1  |  |

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| 4 | 472 | C | When the handle of an all-purpose nozzle is pulled all the way back, it will _____.   | produce high-velocity fog  | produce low-velocity fog   | produce a straight stream   | shut off the water   |         |
| 4 | 473 | B | Each small passenger vessel that operates on the high seas, or beyond 3 miles from the coastline of the Great Lakes must have a Category 1 406 MHz EPIRB that _____.  | is in good operating condition and is stowed near its charger        | will float free and clear of a sinking vessel and automatically activate | is protected against all physical hazards                           | All of the above   |         |
| 4 | 474 | A | You are making ship-to-shore telephone calls on VHF. You should use the _____.  | VHF-FM service   | coastal harbor service   | high seas service   | emergency broadcast service  |         |
| 4 | 475 | D | The minimum bursting pressure for each cargo hose assembly must be at least _____.  | the sum of the relief valve setting and the static head              | twice the sum of the relief valve setting and the static head            | three times the sum of the relief valve setting and the static head | four times the sum of the relief valve setting and the static head |         |
| 4 | 476 | B | What type of gauging is required for a cargo of formic acid?  | Open   | Restricted   | Closed  | None of the above  |         |
| 4 | 477 | D | The radiotelephone required by the "Vessel Bridge-to-Bridge Radiotelephone Act" is for the exclusive use of _____.  | the Master or person in charge of the vessel                         | a person designated by the Master  | a person on board to pilot the vessel                               | All of the above   |         |
| 4 | 478 | A | A crew member is unconscious and the face is flushed. You should _____.   | lay the crew member down with the head and shoulders slightly raised | administer a liquid stimulant  | lay the crew member down with the head lower than the feet          | attempt to stand the crew member upright to restore consciousness  |         |
| 4 | 480 | A | A tanker's mean draft is 32'-05". At this draft, the TPI is 178. The mean draft after loading 1200 tons will be _____.  | 33'-00"  | 33'-04"  | 33'-08"   | 33'-11"  |         |
| 4 | 481 | D | How should the letter "D" be pronounced when spoken on the radiotelephone?  | DUKE   | DA VID   | DOG   | DELL TAH   |         |
| 4 | 482 | A | The high-velocity fog tip used with the all-purpose fire fighting nozzle should always be _____.  | attached by a chain  | coated with heavy grease to prevent corrosion                            | painted red for identity as emergency equipment                     | stored in the clip at each fire station                            |         |
| 4 | 483 | A | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4184 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 25.8 feet   | KG 26.6 feet   | KG 27.2 feet  | KG 28.0 feet   | ST-0008 |
| 4 | 484 | D | A message warning of a tropical storm should be sent as a(n) _____.   | routine message  | urgent message   | distress message  | safety message   |         |



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| 4 | 485 | B | Cargo hose carried on tank vessels must be designed to withstand the pressure of the shutoff head of the cargo pump or pump relief valve setting, but in no case should it be less than _____.                                    | 100 psi  | 150 psi   | 200 psi  | 250 psi  |         |
| 4 | 486 | A | The SS AMERICAN MARINER arrived in port with drafts of: FWD28'-04", AFT 30'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts. | FWD 29'-01", AFT 30'-10"   | FWD 29'-03", AFT 30'-08"  | FWD 29'-07", AFT 30'-08"   | FWD 29'-08", AFT 30'-06"   | ST-0009 |
| 4 | 487 | B | Which statement is TRUE concerning radiotelephones on board towing vessels?   | There cannot be a radiotelephone located anywhere except in the wheelhouse.      | The officer in charge of the wheelhouse is considered to have the radiotelephone watch.                               | Only distress messages may be transmitted over channel 13.   | Only the Master of the vessel is allowed to speak over the radiotelephone.                     |         |
| 4 | 488 | A | A rescuer can most easily determine whether or not an adult victim has a pulse by checking the pulse at the _____.  | carotid artery in the neck   | femoral artery in the groin   | brachial artery in the arm   | radial artery in the wrist   |         |
| 4 | 489 | B | An extinguisher with 15 lbs. of CO2 or 10 lbs. of dry chemical is a size _____.   | I  | II  | III  | IV   |         |
| 4 | 490 | A | Which statement relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?  | There is no cost to the ship or owner for messages sent within the AMVER system. | An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant. | An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore. | The AMVER system does not reduce the time lost for vessels responding to calls for assistance. |         |
| 4 | 491 | D | Before starting to hoist provisions, which should be checked?   | Hoist rope is not kinked   | Multiple part lines are not twisted around each other   | The hook is centrally located over the load  | All of the above   |         |
| 4 | 492 | A | The spray of water produced by using the high-velocity fog position on an all-purpose nozzle will have _____.   | greater range than low-velocity fog  | lesser range than low-velocity fog  | about the same range as low-velocity fog   | greater range than a solid stream  |         |
| 4 | 493 | A | Why are lifeboats usually double-enders?  | They are more seaworthy and less likely to be swamped or broach to.              | They can go forward and backward more easily.   | They require less space for stowing aboard ship.   | There is no particular reason for this.  |         |

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| 4 | 494 | B | A message giving warning of a hurricane should have which prefix when sent by radiotelephone?  | Pan-Pan (3 times)                                      | Securite Securite Securite  | TTT TTT TTT  | No special prefix                          |         |
| 4 | 495 | A | No vessel may use or carry an oil transfer hose unless it meets certain requirements. Which of the following is NOT among those requirements?  | Metallic reinforcement                                 | A bursting pressure that is at least four times the sum of the relief valve setting and the static head | A working pressure that is more than the sum of the relief valve setting and the static head | Identification markings                    |         |
| 4 | 496 | D | The lifeboat releasing gear lever should be marked with the words _____.   | "DANGER, DO NOT TOUCH"                                 | "DANGER, BOAT MAY DROP"   | "DANGER, LEVER RELEASES BOAT"  | "DANGER, LEVER DROPS BOAT"                 |         |
| 4 | 497 | C | The Coast Guard broadcasts routine weather reports on channel _____.   | 13   | 9A  | 22A  | 44   |         |
| 4 | 498 | C | An unconscious person should NOT be _____.   | placed in a position with the head lower than the body | given an inhalation stimulant   | given something to drink   | treated for injuries until conscious       |         |
| 4 | 499 | D | In setting the valves on a steam-smothering system on a tank vessel, the master control valve to cargo tanks should be _____.  | open and individual tank valves open                   | open and the individual tank valves closed  | closed and the individual tank valves closed   | closed and the individual tank valves open |         |
| 4 | 500 | C | Safety shackles are fitted with _____.   | a threaded bolt  | a round pin, with a cotter pin  | a threaded bolt, locknuts, and cotter pins   | round pins and locknuts                    |         |
| 4 | 501 | B | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 1292 tons  | 1248 tons   | 1211 tons  | 1172 tons                                  | ST-0010 |
| 4 | 502 | D | Penetrations and openings in watertight bulkheads in a small passenger vessel less than 100 gross tons must _____.   | be kept as high and as far inboard as possible         | not contain sluice valves that allow water to flow freely from one watertight compartment to another    | have some means to make them watertight  | All of the above                           |         |
| 4 | 503 | B | Your vessel has lifeboats on both sides. Lifeboat No. 2 is located _____.  | forward of lifeboat No. 4 on the starboard side        | forward of lifeboat No. 4 on the port side  | aft of lifeboat No. 1 on the starboard side  | All of the above                           |         |
| 4 | 504 | C | If you wished to transmit a message by voice concerning the safety of navigation, you would preface it by the word _____.  | Mayday   | Pan-pan   | Securite   | Safety                                     |         |

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| 4 | 506 | B | The capacity of any liferaft on board a vessel can be determined by _____.   | examining the Certificate of Inspection              | examining the plate on the outside of the raft container             | referring to the Muster List ("Station Bill")                     | referring to the shipping articles    |         |
| 4 | 507 | D | While underway, if you are required to have a radiotelephone, you must maintain a continuous listening watch on channel _____.   | 6 (156.3 MHz)  | 12 (156.6 MHz)   | 14 (156.7 MHz)  | 16 (156.8 MHz)                        |         |
| 4 | 508 | A | Which should NOT be a treatment for a person who has received a head injury and is groggy or unconscious?  | Give a stimulant.                                    | Elevate his head.  | Stop severe bleeding.   | Treat for shock.                      |         |
| 4 | 509 | C | Placing a lashing across a hook to prevent a fitting from slipping out of the hook is called _____.  | faking   | flemishing down  | mousing   | worming                               |         |
| 4 | 510 | D | A new crew member aboard your fishing vessel, who has not received any safety instructions or participated in any drills, reports on board. The Master must provide a safety orientation _____.                                    | within one week                                      | within 24 hours  | on reporting day if it occurs within normal work hours            | before sailing                        |         |
| 4 | 511 | A | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 696 tons   | 520 tons   | 473 tons  | 444 tons                              | ST-0011 |
| 4 | 512 | B | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.     | FWD 28'-10", AFT 29'-04"                             | FWD 29'-02", AFT 29'-07"   | FWD 29'-04", AFT 29'-04"  | FWD 29'-05", AFT 29'-08"              | ST-0012 |
| 4 | 513 | C | Number 3 lifeboat would be _____.  | the forward boat on the starboard side               | behind boat number 1 on the port side                                | behind boat number 1 on the starboard side                        | behind boat number 2 on the port side |         |
| 4 | 514 | A | You hear on the radiotelephone the word "Securite" spoken three times. This indicates that _____.  | a message about the safety of navigation will follow | a message of an urgent nature about the safety of a ship will follow | the sender is in distress and requests immediate assistance       | you should secure your radiotelephone |         |
| 4 | 515 | C | Which statement is TRUE concerning the placard entitled "Discharge of Oil Prohibited"?   | It is required on all vessels.                       | It must be located in a conspicuous place in the wheelhouse.         | It must be located at the bilge and ballast pump control station. | All of the above                      |         |

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| 4 | 516 | C | Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?  | Carbon dioxide                                     | Hydrogen sulfide                                     | Carbon monoxide                              | Nitric oxide                                     |  |
| 4 | 517 | A | The VHF radiotelephone calling/safety/distress frequency is _____.  | 156.8 MHz (channel 16)                             | 156.7 MHz (channel 14)                               | 156.65 MHz (channel 13)                      | 156.6 MHz (channel 12)                           |  |
| 4 | 518 | B | A person who gets battery acid in an eye should IMMEDIATELY wash the eye with _____.  | boric acid solution                                | water  | baking soda solution                         | ammonia  |  |
| 4 | 519 | D | A vessel must have at least two fireman's outfits aboard if she _____.  | is documented                                      | is over 100 gross tons                               | is under foreign articles                    | has more than 49 people aboard                   |  |
| 4 | 520 | A | What is the displacement of a barge which measures 85' x 46' x 13' and is floating in salt water with a draft of ten feet?  | 1117 tons  | 1452 tons  | 500 tons                                     | 17.5 tons  |  |
| 4 | 521 | B | On a vessel of 6,000 tons displacement there are two slack tanks of carbon tetrachloride (SG 1.6). Each tank is 40 feet long and 25 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)? | .39 ft   | .77 ft   | .88 ft                                       | .95 ft   |  |
| 4 | 522 | B | A spanner is a _____.   | cross connection line between two main fire lines  | special wrench for the couplings in a fire hose line | tackle rigged to support a fire hose         | None of the above                                |  |
| 4 | 523 | C | The bottom row of plating next to the keel of a lifeboat is known as the _____.   | sheer strake                                       | bilge strake   | garboard strake                              | keel rib   |  |
| 4 | 524 | B | The radiotelephone safety message urgently concerned with safety of a person would be prefixed by the word _____.   | Mayday   | Pan  | Safety                                       | Interco  |  |
| 4 | 525 | C | What would you consult to determine the number of persons required on duty while loading a cargo of leaded gasoline on your tanker?   | 46 CFR Part 15 (Manning)                           | Certificate of Inspection                            | Oil Transfer Procedures Manual               | IOPP Certificate                                 |  |
| 4 | 526 | D | Motor-propelled lifeboats are required to have sufficient fuel to operate continuously at 6 knots for how many hours?   | 6  | 12   | 18   | 24   |  |
| 4 | 527 | C | The VHF radiotelephone frequency designated to be used only to transmit or receive information pertaining to the safe navigation of a vessel is _____.  | 156.8 MHz (channel 16)                             | 156.7 MHz (channel 14)                               | 156.65 MHz (channel 13)                      | 156.6 MHz (channel 12)                           |  |
| 4 | 528 | D | If a person gets something in his or her eye and you see that it is not embedded, you can _____.  | get them to rub their eye until the object is gone | remove it with a match or toothpick                  | remove it with a piece of dry sterile cotton | remove it with a moist, cotton-tipped applicator |  |

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| 4 | 529 | A | You are ordering ship's stores. Which statement is TRUE?   | Up to five gallons of a flammable liquid may be stowed in the engine room. | All stores of line, rags, linens and other similar type stores must be certified by UL as being fire retardant. | Cylinders containing compressed gasses must be constructed and tested in accordance with the Bureau of Standards. | All distress flares when received must be stored in the portable magazine chest. |  |
| 4 | 530 | D | The TPI curve, one of the hydrostatic curves in a vessel's plans, gives the number of tons _____.  | necessary to change the angle of list 1° at a given draft                  | necessary to change trim 1 inch at a given draft  | pressure per square inch on the vessel's hull at a given draft  | necessary to further immerse the vessel 1 inch at a given draft                  |  |
| 4 | 531 | B | A CO2 portable extinguisher is annually checked by _____.  | reading the gage pressure  | weighing the extinguisher   | discharging a small amount of CO2   | seeing if the seal has been broken   |  |
| 4 | 532 | C | Fire hose should be washed with _____.   | salt water and a wire brush  | caustic soap  | mild soap and fresh water   | a holystone  |  |
| 4 | 533 | D | What is the purpose of limber holes?   | To allow for air circulation   | To allow for stress and strain in rough waters  | To allow water in the boat to drain overboard   | To allow water in the bilge to get to the boat drain                             |  |
| 4 | 534 | B | Your vessel has been damaged and is taking on water, but you do not require immediate assistance. You would preface a message advising other vessels of your situation with _____. | Mayday-Mayday-Mayday   | Pan-Pan (3 times)   | Securite-Securite-Securite  | SOS-SOS-SOS  |  |
| 4 | 535 | D | What is NOT required to be contained in the oil transfer procedures?   | A line diagram of the vessel's oil transfer piping                         | The number of persons on duty during oil transfer operations  | Any special procedures for topping off tanks  | The location and capacity of all fuel and cargo tanks on the vessel              |  |
| 4 | 536 | B | A fully loaded motor-propelled lifeboat must be capable of attaining a speed of at least _____.  | 3 knots in smooth water  | 6 knots in smooth water   | 3 knots in rough water  | 6 knots in rough water   |  |
| 4 | 537 | B | What frequency has the FCC designated for the use of bridge-to-bridge radiotelephone communications?   | 156.275 MHz channel 65   | 156.650 MHz channel 13  | 157.000 MHz channel 28  | 157.000 MHz channel 20   |  |
| 4 | 538 | D | A victim is coughing and wheezing from a partial obstruction of the airway. An observer should _____.  | perform the Heimlich maneuver  | immediately start CPR   | give back blows and something to drink  | allow the person to continue coughing and dislodge the obstruction on his own    |  |

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| 4 | 539 | D | On a vessel of 10,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on tank tops. The hold is 50 feet long and 50 feet wide. The reduction in metacentric height is _____. | 1.2 feet  | 1.1 feet  | 1.3 feet  | 1.5 feet   |        |
| 4 | 540 | D | Of the following, the most important consideration for a tank vessel is _____.  | GM  | the vertical center of gravity  | the longitudinal center of gravity                                      | the stress on the hull                                 |        |
| 4 | 541 | C | The signal "AS" when used in signaling by the International Code of Signals means "_____".  | Over  | Finished with transmission  | Wait  | Repeat this signal                                     |        |
| 4 | 542 | D | Before inserting a low-velocity fog applicator into an all-purpose nozzle, you must _____.  | install the high-velocity nozzle tip  | move the handle to position 2   | move the handle to position 1   | remove the high-velocity nozzle tip                    | D004SA |
| 4 | 543 | B | Aluminum lifeboats are subject to damage by electrolytic corrosion (the aluminum being eaten away). In working around boats of aluminum you must be very careful _____.   | to keep the boats covered at all times  | not to leave steel or iron tools lying in or near these boats             | to keep an electric charge on the hull at all times                     | to rinse these boats regularly with salt water         |        |
| 4 | 544 | B | In radiotelephone communications, the prefix PAN-PAN indicates that _____.  | a ship is threatened by grave and imminent danger and requests immediate assistance | a calling station has an urgent message about the safety of a person      | the message following the prefix will be about the safety of navigation | the message following is a meteorological warning      |        |
| 4 | 545 | A | The oil transfer procedures aboard a tanker transferring oil are NOT required to contain _____.   | the name of each person designated as the person in charge of transfer              | a line diagram of the vessel's oil transfer piping                        | special procedures for topping off tanks                                | a description of the deck discharge containment system |        |
| 4 | 547 | D | Channel 13 (156.65 MHz), the designated bridge-to-bridge channel, may NOT be used to _____.   | exchange navigational information between vessels                                   | exchange navigational information between a vessel and a shore station    | conduct necessary tests   | exchange operating schedules with company dispatcher   |        |
| 4 | 548 | A | A shipmate chokes suddenly, cannot speak, and starts to turn blue. You should _____.  | perform the Heimlich maneuver   | make the victim lie down with the feet elevated to get blood to the brain | immediately administer CPR  | do nothing until the victim becomes unconscious        |        |
| 4 | 549 | A | If a vessel takes a sudden, severe list or trim from an unknown cause, you should FIRST _____.  | determine the cause before taking countermeasures                                   | assume the shift is due to off-center loading                             | counterflood  | assume the cause is environmental forces               |        |

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| 4 | 550 | B | The normal tendency for a loaded tanker is to _____.   | hog   | sag   | have a permanent list                   | be very tender                                     |  |
| 4 | 551 | B | A shaft alley divides a vessel's cargo hold into two tanks, each 20 ft. wide by 60 ft. long. Each tank is filled with saltwater below the level of the shaft alley. The vessel's displacement is 7,000 tons. What is the reduction in GM due to free surface effect? | .29 feet  | .33 feet  | .38 feet                                | .42 feet   |  |
| 4 | 552 | A | When water pressure of 100 psi is used in conjunction with an inline proportioner for the production of the mechanical foam, a 5-gallon can of liquid foam will last _____.  | 1-1/2 minutes   | 2-1/2 minutes   | 5 minutes                               | 15 minutes   |  |
| 4 | 553 | C | Which statement is TRUE concerning lifeboat gripes?  | They must be released by freeing a safety shackle.              | They should not be released until the boat is in lowering position. | They may be adjusted by a turnbuckle.   | They are normally used only with radial davits.    |  |
| 4 | 554 | D | When using the International Code of Signals to communicate, the end of a radiotelephone transmission is indicated by the signal _____.  | YZ  | CQ  | WA                                      | AR   |  |
| 4 | 555 | D | The transfer procedures for oil products are required to be posted _____.  | in the pilothouse   | in the officer's lounge   | in the upper pumproom flat              | where they can be easily seen or readily available |  |
| 4 | 556 | B | All lifeboats, rescue boats, and rigid-type liferafts shall be stripped, cleaned, and thoroughly overhauled at least once every _____.   | 6 months  | year  | 18 months                               | two years  |  |
| 4 | 557 | B | Under the "Vessel Bridge-to-Bridge Radiotelephone Act" the frequency for bridge-to-bridge communications is 156.65 MHz or channel _____.   | 12  | 13  | 14                                      | 16   |  |
| 4 | 558 | A | A small passenger vessel operating on exposed or partially protected waters may not have a port light below the weather deck unless _____.   | its sill is at least 30 inches above the deepest load waterline | it opens and has a solid, inside, hinged cover                      | it is made of thick transparent plastic | it is sealed shut                                  |  |

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| 4 | 559 | C | The maximum draft of the SS AMERICAN MARINER cannot exceed 28'-08" in order to cross a bar. The present drafts are: FWD 28'-00", AFT 29'-00". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition. | 44.4 tons  | 58.0 tons  | 76.7 tons   | 116.0 tons  |  |
| 4 | 560 | B | On small passenger vessels each inlet or discharge pipe penetrating the hull less than six inches above the deepest load waterline _____.  | must have a check valve to prevent water from entering | except for engine exhausts must have a means to prevent water from entering the vessel if the pipe fails | must be fitted with a gate valve  | must be sealed  |  |
| 4 | 561 | C | The 12-foot low-velocity fog applicator _____.   | has a spray pattern 12 feet in diameter                | can be used in conjunction with both 1-1/2 inch and 2-1/2 inch all-purpose nozzles                       | has a 90° bend at its discharge end   | has a screw thread end which connects to the all-purpose nozzle |  |
| 4 | 562 | D | One gallon of high expansion foam solution will produce _____.   | 8 to 10 gallons of foam                                | 25 to 50 gallons of foam   | 100 to 200 gallons of foam  | 500 to 1000 gallons of foam                                     |  |
| 4 | 563 | B | Which item is of the most use in getting a lifeboat away from a moving ship?   | The falls  | Boat hook  | Boat painter  | Sea painter   |  |
| 4 | 564 | B | If you receive the signal over radiotelephone of "Romeo Papa Tango" while using the International Code of Signals, you should _____.   | report to the caller                                   | repeat your last transmission  | continue since he received your last transmission                               | end the transmission  |  |
| 4 | 565 | C | Small oil spills on deck can be kept from going overboard by _____.  | driving wooden plugs into the vents                    | closing the lids on the vents  | plugging the scuppers   | plugging the sounding pipes                                     |  |
| 4 | 566 | C | Which statement is TRUE concerning a motor lifeboat?   | It is propelled by engine or hand-propelling gear.     | It has a sufficient fuel capacity, if motorized, for 48 hours of operation.                              | It must be able to maintain a loaded speed of 6 knots.                          | All of the above  |  |
| 4 | 567 | A | On small passenger vessels if an item of lifesaving equipment is carried but not required _____.   | the equipment must be approved by the Commandant       | it must be removed from the vessel as excess equipment   | it may remain aboard the vessel as excess equipment regardless of its condition | it must be destroyed in the presence of a marine inspector      |  |



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| 4 | 568 | D | On a small passenger vessel, if an inlet or discharge pipe is not accessible, its shut off valve _____.   | must be operable from the weather deck   | may be operable from any accessible location above the bulkhead deck | must be labeled at its operating point to show its identity and direction of closing | All of the above                               |  |
| 4 | 569 | C | A shaft alley divides a vessel's cargo hold into two tanks, each 25 ft. wide by 50 ft. long. Each tank is filled with salt water below the level of the shaft alley. The vessel's displacement is 6,000 tons. What is the reduction in GM due to free surface effect? | .56 foot                                 | .58 foot   | .62 foot   | .66 foot                                       |  |
| 4 | 570 | C | On a vessel of 5,000 tons displacement there are two slack tanks of acid (SG 1.8). Each tank is 30 feet long and 20 feet wide. What is the reduction in metacentric height due to free surface with the vessel in sea water (SG 1.025)?                               | .11 ft                                   | .21 ft   | .40 ft   | .82 ft   |  |
| 4 | 571 | B | To increase the extent of flooding your vessel can suffer without sinking, you could _____.   | ballast the vessel                       | increase reserve buoyancy  | lower the center of gravity  | raise the center of gravity                    |  |
| 4 | 572 | C | Your tankship has 40 gallons of 6% foam concentrate aboard. Approximately how much foam solution can be produced from this supply?  | 200 gallons                              | 420 gallons  | 667 gallons  | 986 gallons                                    |  |
| 4 | 573 | A | The sea painter of a lifeboat should be led _____.  | forward and outside of all obstructions  | forward and inside of all obstructions                               | up and down from the main deck   | to the foremost point on the ship              |  |
| 4 | 574 | A | You are calling another vessel by radiotelephone using the International Code of Signals. He responds with the words "Alpha Sierra". This indicates that _____.   | he cannot accept traffic immediately     | you should proceed with your message                                 | you should send your message in International Code                                   | you should send your message in plain language |  |
| 4 | 575 | D | Pollution regulations require that each scupper in an enclosed deck area have a _____.  | wooden plug                              | soft rubber plug   | two-piece soft patch   | mechanical means of closing                    |  |
| 4 | 576 | B | Each lifeboat must be lowered and maneuvered in the water at least once every _____.  | 2 months                                 | 3 months   | 4 months   | 5 months                                       |  |
| 4 | 577 | B | All towing vessels of 26 feet or longer while navigating are required to carry which item?  | At least two lifeboats                   | A radiotelephone   | A radio direction finder   | None of the above                              |  |
| 4 | 578 | B | When fighting fires in spaces containing bottles of LPG (liquefied petroleum gas), you should _____.  | attempt to isolate the fire from the LPG | cool the bottles or remove them from the fire area                   | see that the valves on all LPG bottles are closed                                    | place insulating material over the bottles     |  |
| 4 | 579 | D | The letter R followed by one or more numbers indicates _____.   | a vessel's identity                      | bearing  | visibility   | distance                                       |  |
| 4 | 580 | B | Freeboard is measured from the upper edge of the _____.   | bulwark                                  | deck line  | gunwale bar  | sheer strake                                   |  |

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| 4 | 581 | B | You are ordering ships' stores that are NOT consumer commodities. Which statement is TRUE?  | All flammable liquids must be stowed in the paint locker or specially constructed integral tanks. | The label of a hazardous ships' store must include instructions for safe stowage. | Replacement CO2 cylinders for the fixed fire fighting system must have been tested within 8 years of receipt. | Cartridges for the line throwing appliance must be stored in the portable magazine chest after receipt. |         |
| 4 | 582 | B | Extra chemicals for producing chemical foam should be stored _____.   | in a freezer  | in a cool dry place   | at a temperature not less than 80°F   | in open bins  |         |
| 4 | 583 | D | The minimum length of the painter for a lifeboat in ocean service is _____.   | 60 fathoms  | the distance from the main deck to the light waterline                            | twice the distance from the main deck to the light waterline or 50 feet whichever is greater                  | two times the distance from the boat deck to the light waterline or 50 feet whichever is greater        |         |
| 4 | 584 | D | The SS AMERICAN MARINER arrived in port with drafts of: FWD28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.   | FWD 28'-09", AFT 29'-00"  | FWD 28'-07", AFT 29'-01"  | FWD 28'-05", AFT 29'-08"  | FWD 28'-04", AFT 29'-05"  | ST-0013 |
| 4 | 585 | C | How long must a "Declaration of Inspection" be kept on board?   | One week  | Two weeks   | One month   | Three months  |         |
| 4 | 586 | C | On small passenger vessels, which material must not be used in a valve or fitting for a hull penetration?   | Cast bronze   | Plastic   | Cast iron   | Stainless steel   |         |
| 4 | 587 | D | Which vessel is NOT required to have a radiotelephone?  | A 34-foot vessel engaged in towing  | A dredge operating in a channel   | A vessel of 100 GT carrying 50 passengers for hire  | A 12-meter private yacht  |         |
| 4 | 588 | D | At night while the ship is tied up to the dock, a fire breaks out in a cargo hatch. After sounding the alarm, what should the person on watch do?   | Begin fighting the fire immediately.  | Await further orders from the Master.   | Let go the lines to let the vessel drift to an anchorage.   | Send a person to summon the shore authorities.  |         |
| 4 | 589 | A | Fires are grouped into what categories?   | Class A, B, C, and D  | Type 1, 2, 3, and 4   | Combustible solids, liquids, and gases  | Flammable solids, liquids, and gases  |         |
| 4 | 590 | B | The distance between the waterline of a vessel and the main deck is called _____.   | draft   | freeboard   | buoyancy  | camber  |         |
| 4 | 591 | D | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.82 feet   | 2.97 feet   | 3.15 feet   | 3.24 feet   | ST-0014 |

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|---|-----|---|--|---|---|--|--|--|
| 4 | 592 | B | A foam-type portable fire extinguisher would be most useful in combating a fire in _____.  | solid materials such as wood or bales of fiber                        | flammable liquids   | a piece of electrical equipment                                  | combustible metallic solids  |  |
| 4 | 593 | A | The sea painter is secured in the lifeboat by _____.   | a turn around a forward thwart with a toggle pin thru the eye         | a knot around a thwart  | an eye splice placed over one of the hooks of the releasing gear | All of the above   |  |
| 4 | 595 | C | How long shall the operator of a vessel employed in the transferring of oil to other vessels keep the Declaration of Inspection of those transfers?  | 1 week from date of signature   | 2 weeks from date of signature  | 1 month from date of signature                                   | 6 months from date of signature                                    |  |
| 4 | 596 | C | The Master of a cargo or tank vessel shall be responsible that each lifeboat, except those free-fall launched, is lowered to the water with crew and maneuvered at least once every _____. | week  | month   | three months   | year   |  |
| 4 | 597 | D | The "Vessel Bridge-to-Bridge Radiotelephone Act" applies to _____.   | every towing vessel of 16 feet or over in length while navigating     | every vessel of 50 GT and upward, carrying one or more persons for hire | all aircraft operating on the water                              | every power-driven vessel of 20 meters and upward while navigating |  |
| 4 | 598 | B | A fire must be ventilated _____.   | when using an indirect attack on the fire such as flooding with water | to prevent the gases of combustion from surrounding the firefighters    | to minimize heat buildup in adjacent compartments                | if compressed gas cylinders are stowed in the compartment on fire  |  |
| 4 | 599 | C | When starting CPR on a drowning victim, you should _____.  | start chest compressions before the victim is removed from the water  | drain water from the lungs before ventilating                           | begin mouth-to-mouth ventilations as soon as possible            | do not tilt the head back since it may cause vomiting              |  |
| 4 | 600 | C | The amount of freeboard which a ship possesses has a tremendous effect on its _____.   | initial stability   | free surface  | stability at large angles of inclination                         | permeability   |  |
| 4 | 602 | C | What does "EPIRB" stand for?   | Emergency Position Indicating Radar Buoy                              | Electronic Pulse Indicating Radio beacon                                | Emergency Position Indicating Radio beacon                       | None of the above  |  |

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| 4 | 603 | C | The painter which is to be attached to the thwart of a lifeboat should _____.  | be fitted at the end with an approved safety shackle                             | have a long eye splice at the end, and a shackle and pin should be attached to the painter with a lanyard | have a long eye splice at the end, and a hardwood toggle should be attached to the thwart with a lanyard | be fitted with a swivel and quick-releasing pelican hook |
| 4 | 604 | D | To prevent loss of stability from free communication flooding you should _____.  | close the cross-connection valve between the off-center tanks                    | completely flood high center tanks  | ballast double bottom wing tanks   | close any opening to the sea in an off-center tank       |
| 4 | 605 | D | The operator of a vessel subject to the pollution regulations shall keep a written record available for inspection by the COPT or OCMI containing _____.       | the name of each person currently designated as a person in charge               | the date and result of the most recent test on the system relief valves                                   | hose information including the minimum design burst pressure for each hose                               | All of the above   |
| 4 | 606 | B | When lifeboat winches with grooved drums are fitted on a vessel the lead sheaves to the drums shall be located to provide fleet angles of not more than _____. | 4°   | 8°  | 12°  | 16°  |
| 4 | 607 | C | The "Vessel Bridge-to-Bridge Radiotelephone Act" applies to which towboat?   | A 100 GT towboat, 24 feet in length  | A 90-foot towboat tied to the pier  | A 60-foot towboat pushing ahead  | A 400 GT towboat anchored                                |
| 4 | 608 | C | A fire of escaping liquefied flammable gas is best extinguished by _____.  | cooling the gas below the ignition point   | cutting off the supply of oxygen  | stopping the flow of gas   | interrupting the chain reaction                          |
| 4 | 609 | D | Which small passenger vessel(s) is/are NOT required to carry a Category 1 406 MHz EPIRB?   | A coastwise vessel whose route does not take it more than three miles from shore | A vessel operating on lakes, bays, sounds, and rivers   | A vessel operating within three miles from the coastline of the Great Lakes                              | All of the above   |
| 4 | 610 | D | The amount of freeboard which a ship possesses has a tremendous effect on its _____.   | initial stability  | free surface  | permeability   | stability at large angles of inclination                 |
| 4 | 611 | D | The maximum mean draft to which a vessel may be safely loaded is called _____.   | mean draft   | calculated draft  | deep draft   | load line draft  |
| 4 | 612 | A | The service life of distress signals must be not more than _____.  | forty two months from the date of manufacture                                    | thirty six months from the date of the last inspection  | twenty four months from the date of approval   | twelve months from the date of purchase                  |

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| 4 | 613 | C | The length of the steering oar in a lifeboat is _____.  | shorter than the rowing oars                                      | the same length as the rowing oars  | longer than the rowing oars   | unrelated to the length of the rowing oars |  |
| 4 | 614 | C | Your vessel is damaged and listing to port. There is a short rolling period around the angle of list. The port side freeboard is reduced to 1 foot. There is no trim and the weather is calm. You should FIRST _____. | press up a slack double bottom tank on the port side              | fill an empty centerline double bottom tank   | pump out a slack marine portable tank located on the portside amidships | jettison the anchors and anchor cables     |  |
| 4 | 615 | C | The operator of each vessel subject to the pollution regulations is NOT required to keep written records of _____.  | the name of each person designated as a person in charge          | the date and results of the most recent equipment inspection                        | cargoes carried and dates delivered, including destinations             | hose information not marked on the hose    |  |
| 4 | 616 | D | Winch drums for lifeboat falls shall have a diameter at the base of the groove equal to at least _____.   | 6 times the diameter of the wire rope                             | 8 times the diameter of the wire rope   | 12 times the diameter of the wire rope                                  | 16 times the diameter of the wire rope     |  |
| 4 | 617 | B | For the purposes of distress signaling, small passenger vessels that operate on runs of more than 30 minutes duration on lakes, bays and sounds, and river routes must carry _____.                                   | A radiotelephone  | Three hand red flare distress signals, and three hand orange smoke distress signals | A "Very" pistol and flare kit   | An approved noise-making device            |  |
| 4 | 618 | C | You are on watch at night in port and discover a fire in #1 hatch. Which action should you take FIRST?  | Advise the Chief Mate and Master.                                 | Release carbon dioxide into the hatch.  | Sound the general alarm.  | Lead a fire hose to the hatch.             |  |
| 4 | 619 | D | A fire in the galley ALWAYS poses the additional threat of _____.   | contaminating food with extinguishing agent                       | spreading through the engineering space   | causing loss of stability   | a grease fire in the ventilation system    |  |
| 4 | 620 | A | A vessel's LCG is determined by _____.  | dividing the total longitudinal moment summations by displacement | dividing the total vertical moment summations by displacement                       | multiplying the MT1 by the longitudinal moments                         | subtracting LCF from LCB                   |  |
| 4 | 622 | B | Most enclosed lifeboats will right themselves after capsizing IF the _____.   | lower ballast tanks are filled with water                         | passengers are strapped to their seats  | sea anchor is deployed to windward                                      | fuel tanks are not less than half full     |  |
| 4 | 623 | B | In how many locations must lifeboats be installed on a mobile offshore drilling unit?   | 1   | 2   | 3   | 4  |  |
| 4 | 624 | C | Each EPIRB and SART for lifeboats shall be tested _____.  | weekly  | every 2 weeks   | monthly   | every 3 months                             |  |

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| 4 | 625 | B | When the Captain of the Port or Officer in Charge, Marine Inspection issues an order of suspension to the operator of a vessel concerning oil transfer operations, it _____.   | is always effective immediately  | includes a statement of each condition requiring corrective action                | must be in writing before it takes effect   | All of the above   |  |
| 4 | 627 | D | Distress flares and smoke signals for small passenger vessels _____.   | are not required aboard vessels on runs of less than 30 minutes duration | must be Coast Guard approved and stowed in a portable, watertight container       | must be marked with an expiration date not more than 42 months from the date of manufacture | All of the above   |  |
| 4 | 628 | D | The most likely location for a liquid cargo fire to occur on a tanker would be _____.  | in the midships house  | at the main deck manifold   | at the vent header  | in the pumproom  |  |
| 4 | 629 | B | Sign(s) of respiratory arrest requiring artificial respiration is(are) _____.  | vomiting   | blue color and lack of breathing  | irregular breathing   | unconsciousness  |  |
| 4 | 630 | D | Reserve buoyancy is _____.   | also called GM   | the void portion of the ship below the waterline which is enclosed and watertight | affected by the number of transverse watertight bulkheads                                   | the watertight portion of a vessel above the waterline         |  |
| 4 | 631 | A | You are at the helm of a ketch-rigged sailing vessel under sail on the starboard tack, close hauled, with all appropriate sails set and properly trimmed. You are instructed to "bear off quickly". To utilize your sails to assist with the turn, you should _____. | slack the mizzen sheet   | trim the mizzen vang  | slack the jib sheet   | trim the main outhaul  |  |
| 4 | 632 | B | Portable foam type fire extinguishers are most effective on _____.   | mattress fires   | oil fires   | wood fires  | All of the above   |  |
| 4 | 633 | D | A sweep oar is an oar that is _____.   | generally shorter than the others and is used to steer with              | is longer than the others and is used as the stroke oar                           | is raised in the bow of the boat for the steersman to steer by                              | longer than the others used for steering                       |  |
| 4 | 634 | C | You are fighting a fire in a watertight compartment using hoses and salt water. Stability may be reduced because of _____.   | progressive downflooding   | reduction of water in the storage tanks   | increase in free surface which reduces the metacentric height                               | reduction of KG to the minimum allowable                       |  |
| 4 | 635 | C | The person in charge on the vessel and the person in charge at the facility must hold a meeting before starting the transfer of oil. Who must decide to start the transfer?  | The person in charge on the vessel                                       | The person in charge at the facility  | Both persons in charge  | The person in charge of either place that is doing the pumping |  |

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| 4 | 636 | A | What is required by regulations concerning the stowage of lifeboats on cargo vessels?   | Each lifeboat must have a launching appliance. | Launching appliances must be of the gravity type. | There may not be more than two launching appliances on the same deck. | All of the above   |         |
| 4 | 637 | A | The date and time kept in the radiotelephone log shall commence at _____.   | midnight                                       | noon  | beginning of the watch  | any convenient time  |         |
| 4 | 638 | D | You are on watch at sea, at night, when the ordinary seaman reports a fire in number five upper 'tween deck. Which of the following should NOT be done immediately? | Sound the general alarm                        | Secure mechanical cargo hold ventilation          | Call for water on deck  | Release carbon dioxide into the affected compartment                         |         |
| 4 | 639 | A | A fire hose with a nozzle attached must be connected to each hydrant except when exposed to heavy weather or when the _____.  | fire hose might be damaged by cargo operations | vessel is in port                                 | fire-main system is not charged                                       | fire pumps are used for purposes other than supplying water to the fire main |         |
| 4 | 640 | C | The volume of a vessel's intact watertight space above the waterline is its _____.  | free surface                                   | marginal stability                                | reserve buoyancy  | freeboard  |         |
| 4 | 641 | B | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?    | 1.76 feet                                      | 1.97 feet   | 2.21 feet   | 2.32 feet  | ST-0015 |
| 4 | 642 | A | As an extinguishing agent, foam _____.  | conducts electricity                           | should be directed at the base of the fire        | is most effective on burning gases which are flowing                  | extinguishes by cooling oil fires below ignition temperature                 |         |
| 4 | 643 | C | The steering oar in a lifeboat is usually referred to as the _____.   | bumpkin oar                                    | stroke oar  | sweep oar   | becket oar   |         |
| 4 | 644 | C | The difference between the forward and aft drafts is _____.   | list   | heel  | trim  | flotation  |         |
| 4 | 645 | D | A tug should not come alongside a tank vessel in way of its cargo tanks while it is loading grade A, B, or C cargo without the permission of the _____.             | the cognizant OCMI                             | superintendent of the shoreside facility          | local fire department   | person in charge of the transfer   |         |
| 4 | 647 | A | Under the "Vessel Bridge-to-Bridge Radiotelephone Act", the maximum power of all transmitters used shall be not more than _____.                                    | 25 watts                                       | 50 watts  | 75 watts  | 100 watts  |         |
| 4 | 648 | C | Ring life buoys used aboard a small passenger vessels on oceans or coastwise routes are required to be what color?  | White  | White or international orange                     | Orange  | Any highly visible color easily seen from the air                            |         |

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| 4 | 649 | D | The lifeline of a life float or buoyant apparatus shall _____.   | be at least 3/8 inch diameter and properly secured around the sides and ends of the device | be festooned in bights not longer than three feet long                | have a seine float in each bight unless the line is an inherently buoyant material                                    | All of the above   |  |
| 4 | 650 | D | Which is an indication of reserve buoyancy?  | Metacentric height   | Righting moment   | Rolling period  | Freeboard  |  |
| 4 | 651 | D | Small passenger vessels not limited to service during daylight hours must carry _____.   | a radar maintained in good operating condition   | a collision bulkhead  | a white 20 point anchor light   | at least one floating water light  |  |
| 4 | 652 | C | How does foam extinguish an oil fire?  | By cooling the oil below the ignition temperature  | By removing the fuel source from the fire                             | By excluding the oxygen from the fire   | By increasing the weight of the oil  |  |
| 4 | 653 | D | A tank vessel transferring non-flammable hazardous cargo in bulk must display warning signs. These signs must _____.                               | be visible from both sides and from forward and aft  | indicate "NO SMOKING"   | be displayed only while transferring cargo and fast to a dock   | use black lettering on a white background  |  |
| 4 | 654 | D | Which of the following statements about transmitting distress messages by radiotelephone is INCORRECT?   | Distress messages should first be transmitted on 2182 kHz.                                 | Channel 16 (156.8 MHz) may be used for distress messages.             | If no answer is received on the designated distress frequencies, repeat the distress call on any frequency available. | It is advisable to follow a distress message on 2182 kHz by two dashes of 10 to 15 seconds duration. |  |
| 4 | 655 | D | The spread of fire is NOT prevented by _____.  | shutting off the oxygen supply   | cooling surfaces adjacent to the fire                                 | removing combustibles from the endangered area  | removing smoke and toxic gases by ensuring adequate ventilation                                      |  |
| 4 | 656 | C | The governor brake on a lifeboat winch shall be capable of controlling the speed of lowering a fully equipped lifeboat from a cargo ship at _____. | a safe speed only specified  | not less than 120 feet per minute                                     | not more than 120 feet per minute   | not more than 90 feet per minute   |  |
| 4 | 657 | A | What is the normal operating power for ship-to-ship communications on channel 13?  | 1 watt or less   | 5 watts   | 10 watts  | 20 watts   |  |
| 4 | 658 | D | The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?   | A fusible link will automatically open after a fire is extinguished and reset the damper.  | Fusible links must be replaced at every inspection for certification. | Fusible links are tested by applying a source of heat to them.  | Fusible links must be replaced if a damper is activated.   |  |



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| 4 | 659 | B | A vessel carries three slack tanks of gasoline (SG .68). The vessel's displacement is 8,000 tons. Each tank is 50 ft. long and 20 ft. wide. What is the reduction in GM due to free surface with the vessel floating in sea water (SG 1.026)? | .20 feet  | .24 feet  | .28 feet  | .30 feet  |  |
| 4 | 660 | A | Reserve buoyancy is _____.  | the watertight part of a vessel above the waterline   | the void portion of the ship below the waterline which is enclosed and watertight                         | transverse watertight bulkheads   | a measure of metacentric height   |  |
| 4 | 661 | C | The Master of a fishing vessel must ensure that each crew member participates in at least one fire drill every _____.   | day   | week  | month   | 3 months  |  |
| 4 | 662 | C | Foam extinguishes a fire mainly by _____.   | cooling   | chemical action   | smothering  | inerting the air  |  |
| 4 | 663 | C | Stretchers are fitted in lifeboats to provide a _____.  | place for people to lie down  | means for rigging the sail  | place for rowers to brace their feet  | suitable means for water to drain below the footings  |  |
| 4 | 664 | C | Your vessel is in distress and you have made radiotelephone contact with a U.S. Coast Guard vessel. The Coast Guard vessel requests that you give him a long count. This indicates that _____.  | your radio transmitter is not working properly  | the Coast Guard vessel is testing its receiver  | the Coast Guard vessel is taking a radio direction finder bearing on your vessel                      | the Coast Guard vessel is requesting your position in latitude and longitude                                      |  |
| 4 | 665 | A | Who may serve as the "person in charge" of loading and discharge operations aboard a tankship?  | A licensed officer who holds a tankerman-PIC endorsement  | The pumpman who has a tankerman assistant endorsement   | The Master  | The bosun   |  |
| 4 | 668 | C | The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?                 | They are to be kept closed at all times.  | They may be kept open if the ventilation or air conditioning system is shut down.                         | They may be kept open if they can be automatically closed from the bridge.                            | They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire. |  |
| 4 | 669 | D | You are ordering ships' stores. Which statement is TRUE?  | Aerosol cans of engine starting fluid must be stowed in either the paint locker or portable magazine after receipt. | Drugs and medicines must be stowed in accordance with the directives of the Food and Drug Administration. | Flammable ship's stores must be certified for use on inspected vessels by Underwriter's Laboratories. | Properly labeled consumer commodities need not be labeled in accordance with Title 46 CFR.                        |  |

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| 4 | 670 | C | Which action will affect the trim of a vessel?   | Moving high weights lower  | Adding weight at the tipping center                           | Moving a weight forward  | All of the above   |  |
| 4 | 671 | D | When signaling a course using the International Code of Signals, the signal _____.   | must be followed by "T", "M" or "C" to indicate if it is true, magnetic or compass | should be preceded by the letters CSE                         | should include the compass deviation if a compass course is signaled     | always indicates a true course unless indicated otherwise in the message |  |
| 4 | 672 | B | A foam-type portable fire extinguisher is most useful in fighting a fire in _____.   | generators   | oil drums   | the bridge controls  | combustible metals   |  |
| 4 | 673 | A | The grab rail of a metal lifeboat is normally located _____.   | along the turn of the bilge  | along each side of the keel                                   | near the top of the gunwale  | at the bow and at the stern  |  |
| 4 | 674 | B | A distress frequency used on radiotelephone is _____.  | 400 kilohertz  | 2182 kilohertz  | 2728 kilohertz   | 8221 kilohertz   |  |
| 4 | 675 | C | Who completes the Declaration of Inspection before loading a tank vessel?  | The U.S. Coast Guard   | The manager of the shore facility                             | The person(s) designated in-charge                                       | The American Bureau of Shipping  |  |
| 4 | 676 | C | Your vessel has 3 lifeboats on each side. The middle boat on the starboard side is designated as boat number _____.                                  | 2  | 2 STARBOARD   | 3  | 4  |  |
| 4 | 678 | D | Fire may be spread by which means?   | Conduction of heat to adjacent surfaces  | Direct radiation  | Convection   | All of the above   |  |
| 4 | 679 | C | All of the following are part of the fire triangle EXCEPT _____.   | heat   | oxygen  | electricity  | fuel   |  |
| 4 | 680 | C | The ship's tanks most effective for trimming are the _____.  | deeps  | domestics   | peaks  | settlers   |  |
| 4 | 681 | D | Size III, IV, and V extinguishers are considered _____.  | hand portable  | all purpose   | fixed extinguishers  | semi-portable  |  |
| 4 | 682 | C | How are lifelines attached to a life float?  | By serving   | By splicing one end of the line around the apparatus          | Securely attached around the outside in bights no longer than three feet | With an approved safety hook or shackle                                  |  |
| 4 | 683 | D | The purpose of air tanks in a lifeboat is to _____.  | make the boat float higher   | provide a stowage place for provisions                        | add strength to the boat   | keep the boat afloat if flooded  |  |
| 4 | 685 | B | The operator of each vessel engaged in a vessel-to-vessel oil transfer operation must keep a signed copy of the declaration of inspection for _____. | 10 days  | 1 month   | 6 months   | 1 year   |  |
| 4 | 686 | A | You should be most concerned about a possible explosion or fire in fuel tanks _____.   | during fueling when the fuel first strikes the tank bottom                         | during fueling when the fuel strikes fuel already in the tank | when underway as the fuel is moved by wave action                        | shortly after fueling when fuel vapors gather                            |  |

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| 4 | 688 | D | Which may ignite fuel vapors?   | Static electricity  | An open and running motor                           | Loose wiring  | All of the above  |  |
| 4 | 689 | C | After a person has been revived by artificial respiration, he should be _____.  | walked around until he is back to normal                                  | given several shots of whiskey                      | kept lying down and warm  | allowed to do as he wishes  |  |
| 4 | 690 | D | Those ship's tanks that are particularly important for trimming the ship are the _____.   | domestics   | settlers  | deeps   | peaks   |  |
| 4 | 692 | D | Why should foam be banked off a bulkhead when extinguishing an oil fire?  | To coat the surrounding bulkheads with foam in case the fire spreads      | To cool the bulkhead closest to the fire            | To prevent any oil on the bulkheads from igniting                   | To prevent agitation of the oil and spreading the fire  |  |
| 4 | 693 | B | You are operating a fire hose with an applicator attached. If you put the handle of the nozzle in the vertical position you will _____.         | produce high-velocity fog   | produce low-velocity fog                            | produce a straight stream   | shut off the water  |  |
| 4 | 694 | C | What is the international distress frequency for radiotelephones?   | 500 kHz   | 1347 kHz  | 2182 kHz  | 2738 kHz  |  |
| 4 | 695 | C | The Declaration of Inspection made before oil transfer operations must be signed by the _____.  | Master of the vessel  | Captain of the Port                                 | person(s) in charge   | All of the above  |  |
| 4 | 696 | D | For each person it is certified to carry, a lifeboat on an oceangoing passenger vessel must be provided with all of the following EXCEPT _____. | 3 liters of water   | 1 unit of provisions                                | 1 seasickness kit   | 1 life preserver  |  |
| 4 | 697 | A | A violation of the "Vessel Bridge-to-Bridge Radiotelephone Act" may result in a _____.  | civil penalty of \$650 against the Master or person in charge of a vessel | civil penalty of \$1,000 against the vessel itself  | suspension and/or revocation of an operator's FCC license           | All of the above  |  |
| 4 | 698 | D | The spread of fire is prevented by _____.   | cooling surfaces adjacent to the fire                                     | removing combustibles from the endangered area      | shutting off the oxygen supply                                      | All of the above  |  |
| 4 | 699 | B | What is the minimum length of a life floats paddle on a small passenger vessel?   | Three feet  | Four feet   | Five feet   | Six feet  |  |
| 4 | 700 | B | Intact buoyancy is a term used to describe _____.   | the volume of all intact spaces above the waterline                       | an intact space below the surface of a flooded area | an intact space which can be flooded without causing a ship to sink | the space at which all the vertical upward forces of buoyancy are considered to be concentrated |  |

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| 4 | 701 | D | Which statement about free surface is TRUE?   | A partially filled space with 40% surface permeability will have greater free surface effect than one with 60% surface permeability. | Pocketing increases the loss of GM due to free surface effect.                       | Cargo with a specific gravity of 1.05 has less free surface effect than a cargo with a specific gravity of 0.98. | Pocketing occurs at small angles of inclination when a tank is 98% full.      |
| 4 | 702 | A | Which statement about firefighting foam is TRUE?  | Foam conducts electricity.   | To be most effective, foam should be directed at the base of the fire.               | Foam is most effective on burning liquids which are flowing.   | Foam can ONLY be used to extinguish class A fires.                            |
| 4 | 704 | D | Which radiotelephone transmission may be sent over channel 16?  | Distress signal MAYDAY   | Call to a particular station   | A meteorological warning   | All of the above  |
| 4 | 705 | C | Your vessel is at a dock taking bunkers. If oil begins to flow out of a tank vent, what should you do FIRST?  | Open the intake valve to an adjacent tank.   | Set out drip pans and sawdust and begin to mop up the spill.                         | Signal the shore control point to shut down.   | Close the valve on the tank vent line.  |
| 4 | 706 | D | The painter on a life float or buoyant apparatus shall _____.   | have a minimum breaking strength of 3,000 lbs. if the capacity of the lifesaving gear is 50 persons or greater                       | be resistant to ultraviolet sunlight deterioration                                   | be stowed to pay out freely if the vessel sinks  | All of the above  |
| 4 | 707 | D | If your bridge-to-bridge radiotelephone ceases to operate, you must _____.  | immediately anchor your vessel and arrange for repairs to the system   | moor your vessel at the nearest dock available and arrange for repairs to the system | arrange for the repair of the system to be completed within 48 hours   | exercise due diligence to restore the system at the earliest practicable time |
| 4 | 708 | D | Removing which will extinguish a fire?  | Nitrogen   | Carbon dioxide   | Sodium   | Oxygen  |
| 4 | 709 | B | What is the reduction in metacentric height due to free surface when a tank 60 ft. wide and 60 ft. long is partially filled with saltwater? (The vessel's displacement is 10,000 tons.) | 3.00 feet  | 3.09 feet  | 3.15 feet  | 3.20 feet   |
| 4 | 710 | A | Buoyancy is a measure of the ship's _____.  | ability to float   | deadweight   | freeboard  | midships strength   |
| 4 | 711 | A | When administering artificial respiration to an adult, the breathing cycle should be repeated about _____.  | 12 to 15 times per minute  | 18 to 20 times per minute  | 20 to 25 times per minute  | as fast as possible   |

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| 4 | 712 | C | Which statement is TRUE concerning the application of foam on an oil fire?  | It cools the surface of the liquid.  | It gives protection to fire fighting personnel against the heat of the fire.         | It forms a smothering blanket on the surface of the oil.                 | It should be used at the same time a solid stream of water is being applied. |  |
| 4 | 713 | D | Preventer bars are fitted on lifeboat releasing gear to prevent _____.  | the falls from unhooking if the releasing gear is operated accidentally  | operation of the release lever until the boat is waterborne                          | the falls from rehooking after they have been released                   | accidental unhooking when the falls become slack                             |  |
| 4 | 714 | D | A Coast Guard radiotelephone message about an aid to navigation that is off station is preceded by the word _____.                                | "PAN-PAN"  | "MAYDAY"   | "SOS"  | "SECURITY"   |  |
| 4 | 715 | D | Your vessel is taking on fuel when a small leak develops in the hose. You order the pumping stopped. Before you resume pumping, you should _____. | notify the terminal superintendent   | place a large drip pan under the leak and plug the scuppers                          | repair the hose with a patch   | replace the hose   |  |
| 4 | 716 | C | The required amount of water for each person in a lifeboat on an oceangoing vessel, on an international voyage, is _____.                         | 1 liter  | 2 liters   | 3 liters   | 4 liters   |  |
| 4 | 717 | D | If your radiotelephone fails while underway, _____.   | you must visually signal oncoming vessels  | you must immediately tie up in the nearest port until the radiotelephone is repaired | you must anchor until the radiotelephone is repaired                     | the loss of the radiotelephone must be considered in navigating the vessel   |  |
| 4 | 718 | B | Painters fitted to life floats and buoyant apparatus with a capacity of 49 or less persons must _____.  | be of manila rope or equivalent, not less than two inches in circumference and not less than four fathoms long | be 100 feet long and have a breaking strength of at least 1500 lbs.                  | be at least 100 feet long and have a breaking strength of 3,000 lbs.     | be made of 90 feet of 3/8" nylon   |  |
| 4 | 719 | D | A fire hose has a _____.  | male coupling at both ends   | female coupling at both ends   | female coupling at the nozzle end and a male coupling at the hydrant end | male coupling at the nozzle end and a female coupling at the hydrant end     |  |
| 4 | 720 | A | The center of volume of the immersed portion of the hull is called the _____.   | center of buoyancy   | center of flotation  | center of gravity  | tipping center   |  |
| 4 | 721 | A | Forces within a vessel have caused a difference between the starboard and port drafts. This difference is called _____.                           | list   | heel   | trim   | flotation  |  |

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| 4 | 722 | B | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 23'-03", AFT 27'-00"                             | FWD 23'-07", AFT 26'-07"  | FWD 24'-01", AFT 26'-02"   | FWD 24'-06", AFT 25'-10"   | ST-0016 |
| 4 | 724 | C | Messages concerning weather conditions transmitted by radiotelephone are preceded by _____.  | MAYDAY   | PAN-PAN   | SECURITE   | SOS  |         |
| 4 | 725 | A | You notice oil on the water near your vessel while taking on fuel. You should FIRST _____.   | stop fueling   | notify the senior deck officer                                  | notify the terminal superintendent   | determine whether your vessel is the source                                      |         |
| 4 | 726 | C | On an oceangoing vessel, for each person a lifeboat (without desalting kits) is certified to carry, the boat must be supplied with _____.  | 2 pounds of condensed milk                           | a signaling whistle   | 3 liters of water  | a life preserver   |         |
| 4 | 727 | D | Under the "Vessel Bridge-to-Bridge Radiotelephone Act", failure of a vessel's radiotelephone equipment _____.  | constitutes a violation of the Act                   | obligates the operator to moor or anchor the vessel immediately | requires immediate, emergency repairs  | does not, in itself, constitute a violation of the Act                           |         |
| 4 | 728 | B | When water is used to fight a fire on board a ship, the effect of the weight of the water must be taken into account. How much sea water will increase the weight displacement by one ton? | 64 cubic feet  | 35 cubic feet   | 100 gallons  | 500 liters   |         |
| 4 | 729 | B | At what rate would you render mouth to mouth or mouth to nose artificial respiration to an adult?  | 4 to 6 times per minute                              | 12 to 15 times per minute                                       | 20 to 30 times per minute  | At least 30 times per minute   |         |
| 4 | 730 | C | The percentage of the total surface area or volume of a flooded compartment that can be occupied by water caused by damage is known as _____.  | one compartment standard                             | center of flotation   | permeability   | form gain  |         |
| 4 | 731 | A | If Annex V to MARPOL 73/78 applies to your vessel, you will not be able to discharge _____ anywhere at sea.  | plastic  | metal   | glass  | paper  |         |
| 4 | 732 | A | Which statement(s) is(are) TRUE concerning the use of dry chemical extinguishers?  | You should direct the spray at the base of the fire. | You should direct the spray directly into the fire.             | You should direct the spray at a vertical bulkhead and allow it to flow over the fire. | All of the above   |         |
| 4 | 733 | B | Lifeboat hatchets should be _____.   | kept in a locker                                     | secured at each end of the boat with a lanyard                  | kept next to the boat coxswain   | kept in the emergency locker on the ship and brought to the lifeboat when needed |         |
| 4 | 734 | B | On small passenger vessels painters fitted to life floats shall be at least _____.   | 20.0 meters (65.5 feet) in length                    | 30.5 meters (100 feet) in length                                | 10 fathoms (60 feet) in length   | 90 feet (27.5 meters) in length  |         |

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| 4 | 735 | B | You are fueling your vessel when you notice oil in the water around your vessel. You should immediately stop fueling and _____.  | begin cleanup operations  | notify the U. S. Coast Guard  | leave the area  | notify the Corps of Engineers   |  |
| 4 | 736 | D | How many liters of water per person must be carried in lifeboats on a tankship sailing a coastwise route?  | None  | One   | Two   | Three   |  |
| 4 | 737 | D | When using the Code of Federal Regulations (CFR's) for Tank Vessels, you see T/O and B/C. What do the T and B tell you?  | The waters in which vessels may operate   | Special construction limitations  | Grades of cargo which may be carried  | Type of vessel to which the regulation applies                                      |  |
| 4 | 738 | B | There is a fire aft aboard your vessel. To help fight the fire, you should _____.  | put the wind off either beam  | head the bow into the wind and decrease speed   | put the stern into the wind and increase speed  | put the stern into the wind and decrease speed                                      |  |
| 4 | 739 | C | A 7,000 ton displacement tankship carries two slack tanks of alcohol with a S.G. of 0.8. Each tank is 50 ft. long and 30 ft. wide. What is the reduction in GM due to free surface with the vessel floating in sea water, S.G. is 1.026? | .36 ft  | .46 ft  | .72 ft  | .82 ft  |  |
| 4 | 740 | C | What is NOT a motion of the vessel?  | Pitch   | Roll  | Trim  | Yaw   |  |
| 4 | 741 | C | You are ordering ship's stores. Which statement is TRUE?   | Stores such as line, rags, mattresses, linens, etc. must be treated to be fire retardant. | Stores certified for use on uninspected vessels may be identified by the certification number used by Underwriter's Laboratories. | A portable container of a flammable liquid used as fuel for portable auxiliary equipment must be stowed in a paint locker or at a designated open location. | Acetylene may be in a ship's storeroom in quantities not exceeding 6000 cubic feet. |  |
| 4 | 742 | B | An advantage of an ABC dry chemical over a carbon dioxide extinguisher is _____.   | lack of toxicity  | the multipurpose extinguishing ability  | burn-back protection  | cooling ability   |  |
| 4 | 743 | B | In order for the automatic lifeboat drain to operate properly _____.   | the cap should be removed to drain the boat when it is waterborne                         | the cage must be free of rubbish or the ball may not seat properly  | there is an automatic ball check located in a siphon tube   | the small lever to release the rubber ball float must be turned counterclockwise    |  |
| 4 | 744 | B | You are using VHF channel 16 (156.8 MHz) or 2182 kHz. You need help but are not in danger. You should use the urgent signal _____.   | "ASSISTANCE NEEDED"   | "PAN-PAN"   | "MAYDAY"  | "SECURITE"  |  |
| 4 | 745 | D | You detect oil around your tank vessel while discharging. The FIRST thing to do is _____.  | try to find out where the oil is coming from  | call the Master   | have the pumpman check the discharge piping   | shut down operations  |  |

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| 4 | 746 | A | The quantity of fuel required to be carried in a motor lifeboat is _____.   | the quantity needed for 24 hours continuous operation                       | the quantity needed for 48 hours continuous operation               | 55 gallons   | 90 gallons   |
| 4 | 747 | C | Which statement about the use of portable electric lights in petroleum product tanks is TRUE?   | The fixture must be explosion-proof and the line must have a ground wire.   | They can be used only when the compartment is gas free.             | They must be explosion-proof, self-contained, battery-fed lamps.                                 | No portable electric equipment of any type is allowed.   |
| 4 | 748 | B | A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.                                   | blows the fire back toward the vessel                                       | comes over the bow  | comes over the stern   | comes over either beam   |
| 4 | 749 | A | Small passenger vessels on rivers routes in cold water must be provided with life floats of an aggregate capacity to accommodate _____. | at least 50% of all persons on board or meet certain construction standards | 100% of the crew and 50% of all passengers allowed to be carried    | not less than 50% of all passengers on board at the time   | All persons on board (100% of all passengers and crew)   |
| 4 | 750 | B | The center of flotation of a vessel is _____.   | the center of volume of the immersed portion of the vessel                  | the center of gravity of the water plane                            | that point at which all the vertical downward forces of weight are considered to be concentrated | that point at which all the vertical upward forces of buoyancy are considered to be concentrated |
| 4 | 752 | B | Which statement describes the primary process by which fires are extinguished by dry chemical?  | The stream of dry chemical powder cools the fire.                           | The dry chemical powder attacks the fuel and oxygen chain reaction. | The powder forms a solid coating over the surface.   | The dry chemical smothers the fire.  |
| 4 | 753 | D | How should signal flares be used after you have abandoned ship and are adrift in a liferaft?  | Immediately use all the signals at once.                                    | Use all the signals during the first night.                         | Employ a signal every hour after abandoning ship until they are gone.                            | Use them only when you are aware of a ship or plane in the area.                                 |
| 4 | 754 | D | "PAN-PAN" repeated three times over the radiotelephone indicates which type of message will follow?                                     | Distress  | Safety  | All clear  | Urgency  |
| 4 | 755 | A | While your vessel is taking on fuel you notice oil on the water around the vessel. What should you do FIRST?                            | Stop the fueling.   | Notify the Coast Guard.   | Notify the terminal superintendent.  | Determine the source of the oil.   |
| 4 | 756 | C | A motor lifeboat shall carry sufficient fuel to operate continuously for a period of _____.   | 12 hours  | 18 hours  | 24 hours   | 36 hours   |



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| 4 | 757 | B | Which tank vessel must carry a signaling lamp?   | A 1,000 GT tanker on a coastwise voyage       | A 200 GT tanker on an international voyage                   | A 300 GT tanker on an intercoastal voyage                       | All of the above   |  |
| 4 | 758 | B | A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.   | remain on course and hold speed               | change course and put the stern to the wind                  | change course to put the wind on either beam and increase speed | remain on course but slack the speed                         |  |
| 4 | 759 | B | Determine the free surface correction for a fuel oil tank 30 ft. long by 40 ft. wide by 15 ft. deep, with a free surface constant of 3794. The vessel is displacing 7,000 tons in saltwater. | 0.35 foot                                     | 0.54 foot  | 0.65 foot   | 1.38 feet  |  |
| 4 | 760 | A | With certain exceptions a suitable rescue boat is required _____.  | on most "T-Boats" more than 65 feet in length | on most "T-Boats" regardless of length                       | only on "K-Boats"   | None of the above  |  |
| 4 | 761 | A | Which when removed, will result in the extinguishment of a fire?   | Oxygen  | Carbon dioxide   | Sodium  | Nitrogen   |  |
| 4 | 762 | A | The most effective extinguishing action of dry chemical is _____.  | breaking the chain reaction                   | the CO2 that is formed by heat                               | smothering  | shielding of radiant heat                                    |  |
| 4 | 763 | A | Which item of lifeboat equipment would be most suitable for night signaling to a ship on the horizon?  | A red parachute flare                         | A red hand-held flare  | A flashlight  | A lantern  |  |
| 4 | 764 | B | Which word is an international distress signal when transmitted by radiotelephone?   | Securite                                      | Mayday   | Breaker   | Pan  |  |
| 4 | 765 | B | Hoses used for cargo transfer operations must be tested and inspected at specified intervals by _____.   | a representative of the Captain of the Port   | the operator of the vessel or facility                       | a representative of the National Cargo Bureau                   | a representative of the American Bureau of Shipping          |  |
| 4 | 767 | A | On every vessel, distress signals must be stowed _____.  | on or near the navigating bridge              | on the flying bridge not closer than 15 feet to any bulkhead | above the freeboard deck away from heat                         | in an enclosed space below the freeboard deck away from heat |  |
| 4 | 768 | D | Which statement is TRUE concerning carbon dioxide?   | It is heavier than air.                       | It is non-conductive.  | It is used on class B and C fires.                              | All of the above are true.                                   |  |
| 4 | 769 | A | A life float on a fishing vessel must be equipped with _____.  | a painter                                     | red smoke flares   | a jackknife   | a signal mirror  |  |
| 4 | 770 | D | A vessel is described as a two compartment vessel when it _____.   | has no more than two compartments             | has two compartments in addition to the engine room          | will sink if any two compartments are flooded                   | will float if any two adjacent compartments are flooded      |  |

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| 4 | 771 | B | You are approaching another vessel and see that she has the signal flag "F" hoisted. What should you do?   | Continue on your present course since the vessel is signaling for a pilot.          | Attempt to call the vessel on VHF radiotelephone because she is disabled.                             | Stop your vessel instantly.   | Change course to keep clear of the vessel because she is maneuvering with difficulty. |  |
| 4 | 772 | C | What do the small passenger vessel regulations require when installing a hydraulic accumulator or other unfired pressure vessel?   | It be operated at one and one half times normal operating pressure for ten minutes. | Safety and/or relief valves settings be checked at two and one half times normal operating pressures. | It be installed to the satisfaction of the cognizant OCMI               | All of the above  |  |
| 4 | 773 | D | When using the lifeboat compass, you must be careful to _____.   | set it on the centerline of the boat  | apply the correction for compass error  | keep metal objects away from it   | All of the above  |  |
| 4 | 774 | D | If you send a flag hoist of MAJ 8, what information are you conveying?   | The least depth of water in the channel is 8 meters.                                | Derelict dangerous to navigation to the north.  | Navigation is closed. You should navigate with caution.                 | I have a male age 8 years.  |  |
| 4 | 775 | D | During the annual inspection by the owner, each nonmetallic oil transfer hose must not burst, bulge, leak, or abnormally distort under static liquid pressure of at least _____.                       | 100 pounds per square inch  | the relief valve setting pressure   | the shoreside pump discharge pressure                                   | 1½ times the maximum allowable working pressure                                       |  |
| 4 | 776 | B | When dry chemical extinguishers are used to put out class B fires, there is a danger of reflash because dry chemical_____.   | is not an effective agent on Class B fires  | does little or no cooling   | dissipates quickly  | is rapidly absorbed by the liquid   |  |
| 4 | 777 | D | On small passenger vessels a gasoline engine must be fitted with_____.   | A means of backfire flame control   | A lubricating oil pressure gauge and a tachometer   | Jacket water discharge temperature gauges                               | All of the above  |  |
| 4 | 778 | D | An aluminum powder fire is classified as class _____.  | A   | B   | C   | D   |  |
| 4 | 779 | C | A bulk freighter 680 ft. in length, 60 ft. beam, with a waterplane coefficient of .84, is floating in salt water at a draft of 21'. How many long tons would it take to increase the mean draft by 1"? | 64.3 tons   | 69.6 tons   | 81.6 tons   | 116 tons  |  |
| 4 | 780 | A | The change in trim of a vessel may be found by _____.  | dividing the trim moments by MT1  | subtracting the LCF from the LCB  | looking at the Hydrostatic Properties Table for the draft of the vessel | dividing longitudinal moments by the displacement                                     |  |

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| 4 | 781 | C | How is the external flotation bladder of an immersion suit inflated?  | It is inflated by a small CO2 bottle that is automatically tripped when the front zipper is at the top of the zipper track. | It is inflated by a small CO2 bottle that is manually tripped.  | It is inflated by blowing through an inflation tube. | It inflates by sea water bleeding into the flotation bladder and reacting with a chemical therein. |  |
| 4 | 782 | A | On small passenger vessels what device must you install under carburetors, other than the downdraft type, to allow ready removal of fuel leakage?                   | A drip collector  | A funnel and a tin can  | A sponge   | Suitable absorbent material  |  |
| 4 | 783 | D | A person referring to the stern sheets of a lifeboat is speaking of _____.  | the line attached to the tack of the lugsail  | the emergency rudder  | a canvas awning                                      | the aftermost seating  |  |
| 4 | 784 | D | While communicating with a shore station concerning an injured female, your message should indicate the subject's age is 32. Which code would your message contain? | MAO 32  | MAJ 32  | MAL 32   | MAK 32   |  |
| 4 | 785 | A | 33 CFR 156 deals with matters concerning _____.   | oil and hazardous material transfer operations  | vessel construction and design  | operation of nautical school ships                   | lifesaving and firefighting equipment  |  |
| 4 | 786 | A | Which statement is TRUE concerning distress signals in a lifeboat?  | Hand held flares and orange smoke signals are required.   | If hand-held rocket-propelled parachute flares are provided, they are the only distress signals required. | Two hand-held smoke signals shall be provided.       | A Very pistol with twelve flares is required.  |  |
| 4 | 787 | A | To determine which grades of cargo a tank vessel is permitted to carry you should _____.  | refer to the vessel's Certificate of Inspection   | examine the cargo tanks and fittings  | ask the terminal supervisor or his representative    | check the loading order  |  |
| 4 | 788 | B | Fires of which class would most likely occur in the engine room of a vessel?  | Classes A and B   | Classes B and C   | Classes C and D                                      | Classes A and D  |  |
| 4 | 789 | A | An inflatable liferaft equipped with a SOLAS B pack must be stowed _____.   | so as to float free   | with the vessel's emergency equipment   | near the wheelhouse                                  | as far forward as possible   |  |
| 4 | 790 | D | Which would NOT provide extra buoyancy for a vessel with no sheer?  | Lighter draft   | Raised fo'c'sle head  | Raised poop  | Higher bulwark   |  |
| 4 | 791 | A | During a training exercise a submarine indicating that a torpedo has been fired will send up smoke from a float. The smoke's color will be _____.                   | black   | red   | orange   | yellow   |  |

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| 4 | 792 | D | What is an advantage of a dry chemical extinguisher as compared to a carbon dioxide extinguisher?  | It has a greater duration.   | It provides a heat shield for the operator.             | It is nontoxic.  | It offers lasting, effective protection against burn-back.   |  |
| 4 | 793 | B | Which of the following represents the maximum percent of oxygen, by volume, required to be achieved by a ship's inert gas system, prior to the commencement of crude oil tank washing?   | 6%   | 8%  | 10%  | 12%  |  |
| 4 | 794 | B | An oiler was badly burned and you are communicating with a passenger ship that has a doctor and hospital on board. You want to rendezvous in a certain position so the oiler can be evacuated for medical treatment. Which code should your message contain? | MAF  | MAB   | MAA  | MAE  |  |
| 4 | 795 | D | The authority to grant an alternate procedure for oil transfer operations rests with the _____.  | nearest Coast Guard office   | Officer-in-Charge, Marine Inspection                    | Area Commander   | Captain of the Port  |  |
| 4 | 796 | B | When discharging a portable CO2 fire extinguisher, you should NOT hold the horn of the extinguisher because the horn _____.  | becomes extremely hot  | becomes extremely cold                                  | could come off in your hands   | is placed directly in the flames   |  |
| 4 | 797 | D | Which statement about the hospital space on a cargo ship is TRUE?  | The hospital may be used for disciplinary confinement if it is not being used for treatment. | The hospital space must have both a bathtub and shower. | A hospital is required on all vessels with a crew of 12 or more if it makes overnight voyages. | If a ship has a crew of forty-five who do not have their own room, the hospital must have four berths. |  |
| 4 | 798 | C | A fire starts in a switchboard due to a short circuit. This is which class of fire?  | A  | B   | C  | D  |  |
| 4 | 799 | D | Lines or gear NOT in use should be _____.  | conspicuously marked   | stowed anywhere   | left on deck   | secured or stowed out of the way   |  |
| 4 | 800 | D | The "trimming arm" of a vessel is the horizontal distance between the _____.   | LCB and LCF  | LCF and LCG   | LHA and LCG  | LCB and LCG  |  |
| 4 | 801 | C | No person on board any vessel to which Annex V to MARPOL 73/78 applies may discharge garbage of any type when _____.   | less than 12 nautical miles from the United States   | less than 12 nautical miles from nearest land           | in the navigable waters of the United States   | less than 25 nautical miles from nearest land  |  |
| 4 | 802 | B | A portable dry chemical fire extinguisher discharges by _____.   | gravity when the extinguisher is turned upside down  | pressure from a small CO2 cartridge on the extinguisher | air pressure from the hand pump attached to the extinguisher                                   | pressure from the reaction when water is mixed with the chemical                                       |  |

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| 4 | 803 | C | The abandon ship signal on the ship's whistle is _____.   | 6 short blasts and 1 long blast                    | more than 6 short blasts   | more than 6 short blasts and 1 long blast           | 1 long blast of at least 10 seconds  |  |
| 4 | 804 | C | You have an AB who has become violently ill, and you are requesting urgent medical advice. Your message should contain which code?            | MAB  | MAD  | MAA   | MAF  |  |
| 4 | 805 | C | Application for a waiver of any requirements of the regulations for oil transfer operations must be submitted to the _____.                   | District Commander                                 | Commandant   | Captain of the Port                                 | nearest Coast Guard office   |  |
| 4 | 806 | D | On small passenger vessels electrical equipment in spaces that contain gasoline powered machinery must be _____.                              | explosion-proof                                    | intrinsically safe   | ignition protected for use in a gasoline atmosphere | All of the above   |  |
| 4 | 807 | C | The space containing carbon dioxide cylinders shall be properly ventilated and designed to prevent an ambient temperature in excess of _____. | 75°F   | 100°F  | 130°F   | 165°F  |  |
| 4 | 808 | A | A fire in a pile of canvas is classified as class _____.  | A  | B  | C   | D  |  |
| 4 | 809 | D | If the patient vomits during mouth-to-mouth resuscitation, the rescuer should FIRST _____.  | ignore it and continue mouth-to-mouth ventilation  | pause for a moment until the patient appears quiet again, then resume ventilation mouth-to-mouth | switch to mouth-to-nose ventilation                 | turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation |  |
| 4 | 810 | A | When a vessel's LCG is aft of her LCB, the vessel will _____.   | trim by the stern                                  | trim by the head   | be on an even keel                                  | be tender  |  |
| 4 | 811 | B | Your vessel is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.                                   | constantly shifting the rudder                     | rigging a sea anchor   | moving all personnel aft                            | moving all personnel forward and low   |  |
| 4 | 812 | A | You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.                          | at the seat of the fire, starting at the near edge | to bank off a bulkhead onto the fire   | over the top of the fire                            | at the main body of the fire   |  |
| 4 | 813 | C | You hear the general alarm and ship's whistle sound for over 10 seconds. Traditionally, this is the signal for _____.                         | abandon ship                                       | dismissal from fire and emergency stations   | fire and emergency                                  | man overboard  |  |
| 4 | 814 | D | In the International Code of signals, a group of three letters indicates _____.   | urgency or an emergency                            | the vessel's national identity signal  | a group from the general signal code                | a group from the medical signal code   |  |
| 4 | 815 | D | Applications for waivers of any requirements of the regulations for oil transfer operations must be submitted _____.                          | the day before the operations                      | 5 days before the operations   | 10 days before the operations                       | 30 days before the operations  |  |

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| 4 | 816 | B | You are crude oil washing on a tanker with an inert gas system. What percentage of oxygen must the inert gas system produce and deliver to the tanks?              | 0%   | 5%  | 8%  | 11%   |
| 4 | 817 | B | An accommodation ladder or other equally safe and convenient means must be provided for a pilot whenever the distance from the sea level is more than _____.       | 20 feet  | 30 feet   | 40 feet   | 50 feet   |
| 4 | 818 | C | A fire in a transformer terminal would be classified as class _____.   | A  | B   | C   | D   |
| 4 | 819 | A | Providing you are not in a special area, such as the Mediterranean or Red Sea, how many nautical miles from land must you be to throw wooden dunnage into the sea? | 25 nm  | 12 nm   | 6 nm  | 3 nm  |
| 4 | 820 | B | The two points that act together to trim a ship are the _____.   | LCF and LCB  | LCG and LCB   | metacenter and LCG                                    | VCG and LCG   |
| 4 | 821 | A | Bleeding from a vein is _____.   | dark red and has a steady flow   | bright red and slow   | bright red and spurting                               | dark red and spurting                                   |
| 4 | 822 | A | When electrical equipment is involved in a fire, the stream of dry chemicals should be _____.  | aimed at the source of the flames  | fogged above the equipment  | shot off a flat surface onto the flames               | used to shield against electrical shock                 |
| 4 | 823 | B | Traditionally, the signal for fire aboard ship is _____.   | more than 6 short blasts and 1 long blast on the whistle, and the same signal on the general alarm | continuous sounding of the ship's whistle and the general alarm for at least 10 seconds | 1 short blast on the whistle                          | alternating short and long blasts on the ship's whistle |
| 4 | 824 | A | You receive a medical message that contains the code MSJ. This means "_____."  | Place patient in hot bath  | The wound should be stitched  | You should pass a stomach tube                        | The wound should not be stitched                        |
| 4 | 825 | B | ABYC equipment standards are published by the _____.   | Association of Boat and Yacht Classifiers  | American Boat and Yacht Council   | American Boat and Yacht Convention 1991               | American Boat and Yacht Club                            |
| 4 | 827 | D | A small passenger vessel's Official Number must be marked _____.   | in block type Arabic numerals not less than 3 inches high  | or mounted so that any alteration, removal, or replacement would be obvious             | on some clearly visible interior structural hull part | All of the above  |
| 4 | 828 | A | A fire in a pile of dunnage would be classified as class _____.  | A  | B   | C   | D   |

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| 4 | 829 | C | A fire starting by spontaneous combustion can be expected in which condition?  | Paints, varnish, or other liquid flammables are stowed in a dry stores locker. | Inert cargoes such as pig iron are loaded in a wet condition.          | Oily rags are stowed in a metal pail.   | Clean mattresses are stored in contact with an electric light bulb. |  |
| 4 | 830 | C | Your vessel has a midships engine room and the cargo is concentrated in the end holds. The vessel is _____.                                      | sagging with tensile stress on main deck                                       | sagging with compressive stress on main deck                           | hogging with tensile stress on main deck  | hogging with compressive stress on main deck                        |  |
| 4 | 831 | C | The spread of fire is prevented by _____.  | heating surfaces adjacent to the fire  | leaving combustibles in the endangered area                            | shutting off the oxygen supply  | All of the above  |  |
| 4 | 832 | A | Which statement is TRUE concerning the use of a dry chemical extinguisher?   | You should direct the stream at the base of the fire.                          | You should direct the stream directly into the fire.                   | You should direct the stream at a vertical bulkhead and allow it to flow over the fire. | All of the above  |  |
| 4 | 833 | B | While reading the muster list you see that "3 short blasts on the whistle and 3 short rings on the general alarm bells" is the signal for _____. | abandon ship   | dismissal from fire and emergency stations                             | fire and emergency  | man overboard   |  |
| 4 | 834 | B | After sending a message describing the symptoms of an ill crew member, you receive a message containing the code MRL. This means "_____".        | Apply ice-cold compress and renew every 4 hours                                | Commence artificial respiration immediately                            | Give enema  | Pass catheter into bladder  |  |
| 4 | 835 | D | No person may serve as the person in charge of both the vessel and the facility during oil transfer operations unless _____.                     | there is ready access between the two  | the vessel and facility are immediately adjacent                       | the person in charge has a rapid means of transportation between the two                | the Captain of the Port authorizes such procedure                   |  |
| 4 | 836 | B | What size bilge pump is required for a lifeboat which has a capacity of 675 cubic feet?  | 1  | 2  | 3   | 4   |  |
| 4 | 837 | B | The largest crew a cargo vessel may carry without having a hospital space is _____.  | 6  | 11   | 12  | 16  |  |
| 4 | 838 | D | A class C fire would be burning _____.   | fuel oil   | wood   | celluloid   | electrical insulation   |  |
| 4 | 839 | B | A small passenger vessel's Official Number must be marked _____.   | in block type Arabic numerals not less than 1-1/2 inch high                    | or mounted so its alteration, removal, or replacement would be obvious | on some clearly visible exterior structural hull part                                   | All of the above  |  |
| 4 | 840 | A | If a vessel is sagging, what kind of stress is placed on the sheer strake?   | Compression  | Tension  | Thrust  | Racking   |  |
| 4 | 841 | C | Blood flowing from a cut artery appears _____.   | dark red with a steady flow  | bright red with a steady flow  | bright red and in spurts  | dark red and in spurts  |  |

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| 4 | 842 | C | As compared to carbon dioxide, dry chemical has which advantage?  | Cleaner   | Effective on metal fires                                  | Greater range  | More cooling effect   |  |
| 4 | 843 | B | The signal given to commence lowering the lifeboats is _____.   | 3 short blasts of the ship's whistle  | specified on the muster list (station bill)               | 3 long blasts of the ship's whistle  | 1 long blast of the ship's whistle  |  |
| 4 | 844 | B | If a crew member that was ill has died, which code should your message contain?   | MPO   | MPR   | MPK  | MPJ   |  |
| 4 | 845 | D | Each pressure gage used in an oil transfer operation must be accurate to within _____.  | 1 percent   | 3 percent   | 5 percent  | 10 percent  |  |
| 4 | 846 | A | If a lifeboat is stowed 40 feet above the light water draft and 200 feet from the bow, how long must the sea painter be?            | 80 feet   | 160 feet  | Sufficiently long enough to reach the water when the vessel has an adverse list of 15° | One third the length from the bow to where the lifeboat is stowed                                 |  |
| 4 | 848 | B | The class of fire on which a blanketing effect is essential is class _____.   | A   | B   | C  | D   |  |
| 4 | 849 | C | You are testing the external inflation bladder on an immersion suit and find it has a very slow leak. Which action should be taken? | Replace the suit.   | Replace the inflation bladder.                            | Take it out of service and repair in accordance with the manufacturers instructions.   | Some leakage should be expected and a topping off tube is provided; no other action is necessary. |  |
| 4 | 850 | B | When a vessel is stationary and in a hogging condition, the main deck is under _____.   | compression stress  | tension stress  | shear stress   | racking stress  |  |
| 4 | 851 | D | The preferred agent used in fighting a helicopter crash fire is _____.  | CO2   | dry chemical  | water  | foam  |  |
| 4 | 852 | A | Which statement concerning the application of dry chemical powder is FALSE?   | At temperatures of less than 32°F, the extinguisher must be recharged more often. | When possible, the fire should be attacked from windward. | The stream should be directed at the base of the fire.                                 | Directing the stream into burning flammable liquid may cause splashing.                           |  |
| 4 | 853 | B | When whistle signals are used for launching lifeboats, one short blast means _____.   | "use the float-free method only"  | "lower all boats"   | "raise all boats"  | "drill is over, secure all boats"   |  |
| 4 | 854 | C | If an ill crew member is beginning to show signs of improvement, what code should your message contain?                             | MVP   | MPH   | MPF  | MSO   |  |



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| 4 | 855 | D | The term, "cargo tank length", as used in part 157 of the Pollution Regulations, means the _____.   | length of any individual cargo space, from bulkhead to bulkhead                           | greatest distance between two opposite cargo tank bulkheads  | diagonal measurement of a cargo tank                                       | length from the forward bulkhead of the forwardmost cargo tanks to the after bulkhead of the aftermost cargo tanks |         |
| 4 | 856 | C | Which statement about immersion suits is TRUE?  | Immersion suits should be worn during routine work on deck to provide maximum protection. | After purchasing, the suit should be removed from its storage bag and hung on a hanger where readily accessible. | Immersion suits must have a PFD light attached to the front shoulder area. | Small leaks or tears may be repaired using the repair kit packed with the suit.                                    |         |
| 4 | 857 | A | Who must ensure that the emergency lighting and power systems on cargo vessels are operated at least weekly?  | Master  | Chief Engineer   | Deck officer assigned  | Engineering officer assigned   |         |
| 4 | 858 | A | A fire in trash and paper waste is classified as class _____.   | A   | B  | C  | D  |         |
| 4 | 860 | C | A ship's forward draft is 22'-04" and its after draft is 24'-00". The draft amidships is 23'-04". This indicates a concentration of weight _____.   | at the bow  | in the lower holds   | amidships  | at the ends  |         |
| 4 | 861 | A | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 26'-09", AFT 28'-00"  | FWD 27'-00", AFT 27'-10"   | FWD 27'-03", AFT 27'-07"   | FWD 27'-06", AFT 27'-04"   | ST-0017 |
| 4 | 862 | D | Dry chemical extinguishers extinguish class B fires to the greatest extent by _____.  | cooling   | smothering   | oxygen dilution  | breaking the chain reaction  |         |
| 4 | 863 | B | A tank 36 ft. by 36 ft. by 6 ft. is filled with water to a depth of 5 ft. If a bulkhead is placed in the center of the tank running fore-and-aft along the 36-foot axis, how will the value of the moment of inertia of the free surface be affected? | The moment of inertia would remain unchanged.   | The moment of inertia would be 1/4 its original value.   | The moment of inertia would be 1/2 the original value.                     | None of the above  |         |
| 4 | 864 | C | A crew member suddenly becomes blind in both eyes. Which code should your message contain?  | MNJ   | MNM  | MNO  | MNI  |         |

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| 4 | 865 | D | On board a small passenger vessel, fuel tank vents should _____.  | be connected at the highest point in the tank           | terminate in a U-bend fitted with a single corrosion resistant wire screen of at least 30x30 mesh | be installed with an upward gradient to prevent fuel from being trapped in the line | All of the above                            |  |
| 4 | 866 | C | The number of rowing oars that must be carried in a motor-propelled open lifeboat on a cargo vessel is _____.   | determined by the Master                                | specified by the Coast Guard  | specified by the manufacturer   | None  |  |
| 4 | 867 | B | Cargo vessels being navigated, and fitted with emergency lighting and power systems, shall have their emergency systems tested at least once _____.               | a month   | in each week  | in every 6 months   | in every 12 months                          |  |
| 4 | 868 | A | Burning wood is which class of fire?  | A   | B   | C   | D   |  |
| 4 | 869 | B | As a last resort, a tourniquet can be used to _____.  | hold a victim in a stretcher                            | stop uncontrolled bleeding  | hold a large bandage in place   | restrain a delirious victim                 |  |
| 4 | 870 | A | The forward draft of your ship is 27'-11" and the after draft is 29'-03". The draft amidships is 28'-05". Your vessel is _____.                                   | hogged  | sagged  | listed  | trimmed by the head                         |  |
| 4 | 871 | A | The bilge pump on a fishing vessel _____.   | must be fixed if the vessel exceeds 12 meters in length | may be used as a fire pump  | must be portable if there are more than 4 watertight compartments                   | must be capable of pumping at least 450 gpm |  |
| 4 | 872 | D | The safety discs on carbon dioxide cylinders are set to release at 2,700 psi. Under normal circumstances this pressure will be reached at a temperature of _____. | 70°F  | 100°F   | 125°F   | 135°F                                       |  |
| 4 | 873 | D | On small passenger vessels which parts of a water-cooled gasoline or diesel engine must be water-jacketed and cooled?   | The engine's head                                       | The block   | The exhaust manifold  | All of the above                            |  |
| 4 | 874 | C | If you were being assisted by an icebreaker and he sent you the single letter "Q", he would be telling you _____.   | that he has his engines in reverse                      | that he is shortening the distance between vessels  | to shorten the distance between vessels   | that his vessel is healthy                  |  |
| 4 | 875 | B | How many bolts are required in a temporarily connected standard ANSI (American National Standards Institute) coupling?  | 2   | 4   | 6   | 8   |  |
| 4 | 876 | D | Which person may command a lifeboat in ocean service?   | Licensed deck officer                                   | Able seaman   | Certificated person   | All of the above                            |  |

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| 4 | 877 | D | A marine chemist issues gas free certificates and is certified by the _____.  | Mine Safety Appliance Association                                 | American Chemical Society  | Marine Chemists Association  | National Fire Protection Association                  |  |
| 4 | 878 | A | A fire in a pile of linen is a class _____.   | A   | B  | C  | D   |  |
| 4 | 879 | A | To operate a portable CO2 extinguisher continuously in the discharge mode _____.  | slip the "D yoke" ring in the lower handle over the upper handle  | reinsert the locking pin   | open the discharge valve   | invert the CO2 extinguisher                           |  |
| 4 | 880 | C | A ship's forward draft is 22'-04" and its after draft is 23'-00". The draft amidships is 23'-04". This indicates a concentration of weight _____.   | at the bow  | in the lower holds   | amidships  | at the ends   |  |
| 4 | 881 | B | You should FIRST treat a simple fracture by _____.  | attempting to set the fracture                                    | preventing further movement of the bone  | applying a tourniquet  | alternately applying hot and cold compresses          |  |
| 4 | 882 | B | Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.  | closing the compartment except for the ventilators                | completely closing the compartment   | leaving the compartment open to the air                                    | increasing the air flow to the compartment by blowers |  |
| 4 | 883 | D | On a vessel of 15,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water in the tank tops. The hold is 50 feet long and 60 feet wide. The reduction in metacentric height is _____. | 1.54 feet   | 1.59 feet  | 1.63 feet  | 1.71 feet   |  |
| 4 | 884 | C | The single letter G, sent by an icebreaker to an assisted vessel, means _____.  | "I require a pilot"   | "Longitude follows"  | "I am going ahead; follow me"  | "Do not follow me"                                    |  |
| 4 | 885 | C | Which type of marine sanitation device (MSD) is used solely for the storage of sewage and flush water at ambient air pressure and temperature?  | Type I  | Type II  | Type III   | Type IV   |  |
| 4 | 886 | A | What is the minimum number of deck officers, able seaman or certificated persons required for a lifeboat on a vessel in ocean service?  | Two   | Three  | Four   | Five  |  |
| 4 | 887 | A | Carbon dioxide as a fire fighting agent has which advantage over other agents?  | It causes minimal damage.   | It is safer for personnel.   | It is cheaper.   | It is most effective on a per unit basis.             |  |
| 4 | 888 | B | An oil fire is classified as class _____.   | A   | B  | C  | D   |  |
| 4 | 889 | D | Small quantities of flammable liquids needed at a work site should be _____.  | used only under the supervision and direction of a ship's officer | tightly capped and stowed with other tools near the job site when securing at the end of the day | used only when a pressurized fire hose is laid out ready for immediate use | in a metal container with a tight cap                 |  |

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| 4 | 891 | A | On small passenger vessels, cooling water for the exhaust lines from an internal combustion engine must be _____.   | obtained from the engine's cooling water system or from a separate engine-driven pump | chemically treated to prevent corrosion  | flushed and changed periodically                                    | obtained from a fresh water storage tank or an expansion tank          |  |
| 4 | 892 | C | While you are working in a space, the fixed CO2 system is accidentally activated. You should _____.   | secure the applicators to preserve the charge in the cylinders                        | continue with your work as there is nothing you can do to stop the flow of CO2 | retreat to fresh air and ventilate the compartment before returning | make sure all doors and vents are secured                              |  |
| 4 | 893 | D | On a vessel of 12,000 tons displacement, a tank 60 feet long, 50 feet wide, and 20 feet deep is half filled with fresh water (SG 1.000) while the vessel is floating in saltwater (SG 1.026) What is the reduction in metacentric height due to free surface? | 0.97 ft.  | 1.01 ft.   | 1.35 ft.  | 1.44 ft.   |  |
| 4 | 894 | D | Signals between an icebreaker and an assisted vessel may NOT be given by _____.   | whistle   | flag hoist   | radiotelephone  | radiotelegraph   |  |
| 4 | 895 | B | Air-cooled gasoline auxiliary engines are allowed on vessels not more than 65 feet in length, carrying not more than 12 passengers if _____.  | it is not practicable to supply water to the engine                                   | they have a self-contained fuel system and are installed on an open deck       | they are rated at not more than 4.5 horsepower                      | All of the above   |  |
| 4 | 897 | B | Which statement is TRUE concerning carbon dioxide?  | It is lighter than air.   | It is an inert gas.  | It is used mostly on class A fires.                                 | All of the above   |  |
| 4 | 898 | B | A galley grease fire would be classified as which class of fire?  | A   | B  | C   | D  |  |
| 4 | 899 | B | EXCEPT when suffering from a head or chest injury a patient in shock should be placed in which position?  | Head up and feet down   | Head down and feet up  | Flat on back with head and feet elevated                            | Arms above the head  |  |
| 4 | 901 | C | A squeeze-grip type carbon dioxide portable fire extinguisher has been partially discharged. It should be _____.  | replaced in its proper location if weight loss is no more than 15%                    | replaced in its proper location if weight loss is no more than 25%             | labeled empty and recharged as soon as possible                     | labeled empty and replaced in its proper location regardless of weight |  |
| 4 | 902 | C | Your vessel is equipped with a fixed CO2 system and a fire main system. In the event of an electrical fire in the engine room what is the correct procedure for fighting the fire?  | Use the CO2 system and evacuate the engine room.                                      | Use the fire main system and evacuate the engine room.                         | Evacuate the engine room and use the CO2 system.                    | Evacuate the engine room and use the fire main system.                 |  |

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| 4 | 903 | A | On a vessel displacing 8,000 tons, what is the reduction in metacentric height due to free surface when a tank 45 feet long and 45 feet wide is partly filled with salt water?   | 1.22 feet  | 1.16 feet  | 1.13 feet  | 1.10 feet                                 |         |
| 4 | 904 | D | If you are on the beach and are signaling to a small boat in distress that your present location is dangerous and they should land to the left, you would _____.   | fire a green star to the left                    | send the letter K by light and point to the left | place an orange signal to your left as you signal with a white light | send the code signal S followed by L      |         |
| 4 | 905 | C | The color of the signal flare sent up by a submarine coming to periscope depth is _____.   | white  | green  | yellow   | red                                       |         |
| 4 | 906 | C | Inflatable liferafts shall be serviced at an approved servicing facility every 12 months or not later than the next vessel inspection for certification. However, the total elapsed time between servicing cannot exceed _____.                | 12 months  | 15 months  | 17 months  | 18 months                                 |         |
| 4 | 908 | D | If ignited, which material would be a class B fire?  | Magnesium  | Paper  | Wood   | Diesel Oil                                |         |
| 4 | 909 | C | Which part of the inert gas system is designed to relieve sudden large overpressures that exceed the capacity of the mechanical P/V valves?  | Pressure control valve                           | Deck water seal                                  | Liquid filled P/V breaker  | Isolation valve                           |         |
| 4 | 911 | C | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?   | 3.75 feet  | 3.02 feet  | 2.22 feet  | 0.83 foot                                 | ST-0018 |
| 4 | 912 | A | A "fifteen-pound" CO2 extinguisher is so called because _____.   | there are fifteen pounds of CO2 in the container | the container, when full, weighs fifteen pounds  | the pressure at the discharge nozzle is 15 psi                       | the empty container weighs fifteen pounds |         |
| 4 | 913 | A | On a vessel of 8,000 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water in the tank tops. The hold is 40 feet long and 20 feet wide. The reduction in metacentric height is _____. | 0.1 ft   | 0.3 ft   | 0.5 ft   | 0.9 ft                                    |         |
| 4 | 914 | B | What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?   | Red star rocket                                  | Orange smoke signal                              | Green star rocket  | Vertical motion of a flag                 |         |

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| 4 | 915 | D | Which is/are required for engine exhaust pipe installations on small passenger vessels?   | Protection where people or equipment can contact the pipe. | Piping must be arranged so that water backflow cannot reach the engine exhaust ports | Dry exhaust pipe ending at the transom should be located as far outboard as possible | All of the above                                    |  |
| 4 | 917 | B | Foam-type portable fire extinguishers are most useful in combating fires involving _____.   | solid materials such as wood or bales of fiber             | flammable liquids  | electrical equipment   | metallic solids                                     |  |
| 4 | 918 | C | Fires which occur in energized electrical equipment, such as switchboard insulation, are class _____.   | A  | B  | C  | D   |  |
| 4 | 919 | C | After an accident the victim may go into shock and die. What should be done to help prevent shock?  | Slightly elevate the head and feet.                        | Keep the person awake.   | Keep the person lying down and at a comfortable temperature.                         | Give the person a stimulant to increase blood flow. |  |
| 4 | 920 | A | If a vessel lists to port, the center of buoyancy will _____.   | move to port   | move to starboard  | move directly down   | stay in the same position                           |  |
| 4 | 921 | D | You can determine that a CO2 fire extinguisher is fully charged by _____.   | looking at the gauge                                       | checking the nameplate data  | weighing by hand   | weighing on a properly calibrated scale             |  |
| 4 | 922 | C | An upright vessel has negative GM. GM becomes positive at the angle of loll because the _____.  | free surface effects are reduced due to pocketing          | KG is reduced as the vessel seeks the angle of loll                                  | effective beam is increased causing BM to increase                                   | underwater volume of the hull is increased          |  |
| 4 | 923 | C | You are at sea on a vessel whose beam is 60 feet and full period of roll is 20 seconds. What is the estimated metacentric height of the vessel? | 1.3 ft   | 1.5 ft   | 1.7 ft   | 1.9 ft  |  |
| 4 | 924 | A | What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?  | 3 white star signals                                       | Horizontal motion with a white flag  | Vertical motion of a white light   | Code letter "K" by blinker light                    |  |
| 4 | 925 | D | The center of flotation of a vessel is the geometric center of the _____.   | underwater volume  | above water volume   | amidships section  | waterplane area                                     |  |
| 4 | 926 | B | Inflatable liferafts must be overhauled and inspected at a U.S. Coast Guard approved service facility every _____.                              | six months   | twelve months  | eighteen months  | twenty-four months                                  |  |
| 4 | 927 | A | The extinguishing agent most effective for combating wood fires is _____.   | water  | carbon dioxide   | foam   | dry chemical  |  |
| 4 | 928 | C | A fire in the radio transmitter would be of what class?   | A  | B  | C  | D   |  |

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| 4 | 929 | A | According to Annex V to MARPOL 73/78, garbage containing plastic is permitted to be disposed of by _____.  | incinerating offshore                            | discharging when at least 12 nautical miles from nearest land             | grinding to less than 1" and discharging at least 12 nautical miles from nearest land | grinding to less than 1" and discharging at least 25 nautical miles from nearest land    |  |
| 4 | 930 | C | Semi-portable extinguishers used on inspected vessels are sizes _____.   | II, III, and IV                                  | I, II, and III  | III, IV, and V  | IV and V   |  |
| 4 | 931 | D | The major cause of shock in burn victims is the _____.   | high level of pain                               | emotional stress  | increase in body temperature and pulse rate   | massive loss of fluid through the burned area  |  |
| 4 | 932 | D | Portable CO2 fire extinguishers should NOT be used to inert a space containing flammable liquids due to the danger of _____.   | the CO2 being inhaled by personnel               | reflash of burning liquids  | vapor condensation on the extinguisher  | the discharge causing a static spark   |  |
| 4 | 933 | C | You are at sea on a vessel whose beam is 40 feet and the full rolling period is 20 seconds. What is the estimated metacentric height of the vessel?                      | 0.3 ft.  | 0.5 ft.   | 0.8 ft.   | 1.1 ft.  |  |
| 4 | 934 | A | The signal used with shore lifesaving equipment to indicate, "Affirmative" is _____.   | vertical motion of the arms                      | code signal "C" sent by light or sound signaling apparatus                | firing of a red star signal   | None of the above  |  |
| 4 | 935 | C | If an airplane circles a vessel 3 times, crosses the vessel's course close ahead while rocking the wings, and heads off in a certain direction, what does this indicate? | The plane is in distress and will have to ditch. | The plane is going to drop a package and wishes the vessel to recover it. | Someone is in distress in that direction and the vessel should follow and assist.     | There is danger ahead and the best course is indicated by the direction of the aircraft. |  |
| 4 | 936 | C | If your vessel is equipped with inflatable liferafts, how should they be maintained?   | Have your crew check them annually.              | They do not need any maintenance.   | Have them sent ashore to an approved maintenance facility annually.                   | Have them serviced by the shipyard annually.   |  |
| 4 | 937 | B | On a class "B" fire, which portable fire extinguisher would be the LEAST desirable?  | Carbon dioxide                                   | Water (stored pressure)   | Dry chemical  | Foam   |  |
| 4 | 938 | D | A magnesium fire is classified as class _____.   | A  | B   | C   | D  |  |
| 4 | 939 | D | CO2 cylinders forming part of a fixed fire extinguishing system must be pressure tested at least every _____.  | year   | 2 years   | 6 years   | 12 years   |  |

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| 4 | 940 | C | When a vessel is inclined by an external force, the _____.   | shape of the vessel's underwater hull remains the same | vessel's center of gravity shifts to the center of the vessel's underwater hull | vessel's center of buoyancy shifts to the center of the vessel's underwater hull | vessel's mean draft increases |         |
| 4 | 941 | B | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo? | 0.96 foot  | 1.45 feet   | 1.96 feet  | 2.96 feet                     | ST-0019 |
| 4 | 942 | A | A fifteen-pound CO2 extinguisher _____.  | contains 15 pounds of CO2                              | weighs 15 pounds when full of CO2   | has 15 pounds of pressure at the nozzle  | weighs 15 pounds when empty   |         |
| 4 | 943 | B | You are at sea on a vessel that has a beam of 60 feet, and you calculate the period of roll to be 25 seconds. What is the vessel's metacentric height?           | 0.8 ft   | 1.1 ft  | 1.4 ft   | 1.6 ft                        |         |
| 4 | 944 | D | The lifesaving signal indicating "You are seen - Assistance will be given as soon as possible" is the _____.   | vertical motion of white flags                         | vertical motion of a white light or flare                                       | firing of a green star signal  | None of the above             |         |
| 4 | 945 | C | The color of rockets, shells, or rocket parachute flares used to indicate that the vessel is in distress and requires immediate assistance is _____.             | white  | green   | red  | yellow                        |         |
| 4 | 946 | A | What material is allowed in construction of the hull of a vessel with an integral diesel fuel tank ?   | Steel or aluminum                                      | Sandwich style fiberglass with a natural rubber core                            | Copper-nickel or copper silicon alloys   | Any or all of the above       |         |
| 4 | 947 | B | When fighting an oil or gasoline fire in the bilge, which of the following should NOT be used?   | Foam   | Solid stream water nozzle   | All-purpose nozzle   | Carbon dioxide                |         |
| 4 | 948 | D | Fires in combustible metals, such as sodium or magnesium, are classified as class _____.   | A  | B   | C  | D                             |         |
| 4 | 950 | A | Your vessel has taken a slight list from off-center loading of material on deck. The _____.  | list should be easily removed                          | mean draft is affected  | vessel may flop  | vessel is trimmed             |         |
| 4 | 951 | D | If a crewman suffers a second-degree burn on the arm, you should _____.  | drain any blisters                                     | apply antiseptic ointment   | scrub the arm thoroughly to prevent infection                                    | immerse the arm in cold water |         |



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| 4 | 952 | C | Which is the proper method of determining whether a portable CO2 fire extinguisher needs recharging?  | Check the tag to see when the extinguisher was last charged. | Release a small amount of CO2; if the CO2 discharges, the extinguisher is acceptable. | Weigh the extinguisher and compare the weight against that stamped on the valve. | Recharge the extinguisher at least once each year.     |         |
| 4 | 953 | B | You are at sea on a vessel that has a beam of 50 feet, and you calculate the period of roll to be 22 seconds. What is the vessel's metacentric height?  | 0.8 ft   | 1.0 ft  | 1.2 ft   | 1.4 ft   |         |
| 4 | 954 | C | Which is the lifesaving signal for, "This is the best place to land"?   | Red star rocket  | Orange smoke signal   | Green star rocket  | Horizontal motion of a flag                            |         |
| 4 | 955 | C | If another station sent you the signal "KG", he would be _____.   | telling you to stay clear                                    | telling you he has flooded a hold   | asking you if you needed a tug   | telling you he found an aircraft wreckage              |         |
| 4 | 957 | D | An engine compartment gasoline fire requires which type of extinguisher?  | Carbon dioxide   | Dry chemical  | Foam   | All of the above                                       |         |
| 4 | 958 | D | Which substance might be subject to spontaneous combustion?   | Coal   | Scrap rubber  | Leather  | All of the above                                       |         |
| 4 | 959 | C | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?                                | 2.32 feet  | 2.21 feet   | 1.97 feet  | 1.76 feet  | ST-0020 |
| 4 | 960 | D | Your vessel has just finished bunkering and has a small list due to improper distribution of the fuel oil. This list will cause _____.  | a decrease in reserve buoyancy                               | a decrease in the maximum draft   | the vessel to flop to port and starboard   | None of the above                                      |         |
| 4 | 961 | B | Safety is increased if _____.   | extra line and wire are laid out on deck for emergency use   | all lashings are made up, and the decks are clean and clear                           | power tools are kept plugged in for immediate use                                | spare parts are kept on deck for ready access          |         |
| 4 | 962 | B | A carbon dioxide fire extinguisher should be recharged _____.   | at least annually  | whenever it is below its required weight  | only if the extinguisher has been used   | before every safety inspection                         |         |
| 4 | 963 | D | Your vessel has a displacement of 19,800 tons. It is 464 feet long, and has a beam of 64 feet. You have timed its full rolling period to be 21.0 seconds. What is your vessel's approximate GM? | 1.1 ft   | 1.3 ft  | 1.6 ft   | 1.8 ft   |         |
| 4 | 964 | B | Which signal is used by a rescue unit to indicate, "Avast hauling"?   | Firing of a green star signal                                | Firing of a red star signal   | An orange smoke signal   | Three white star rockets fired at one-minute intervals |         |

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| 4 | 965 | B | What statement about immersion suits is TRUE?  | Immersion suits should be worn while performing routine work on deck.      | No stowage container for immersion suits may be capable of being locked. | During the annual maintenance, the front zipper should be lubricated using light machine oil or mineral oil. | Any tear or leak will render the suit unserviceable and it must be replaced.         |  |
| 4 | 967 | A | Gasoline fuel tanks on small passenger vessels must be installed _____.  | independent of the hull  | on a level higher than the engine  | in a cool and insulated place  | so the fuel line to the engine leads from a shut-off valve at the bottom of the tank |  |
| 4 | 968 | D | Which condition is necessary for a substance to burn?  | The temperature of the substance must be equal to or above its fire point. | The air must contain oxygen in sufficient quantity.                      | The mixture of vapors with air must be within the "explosive range."   | All of the above   |  |
| 4 | 969 | A | That center around which a vessel trims is called the _____.   | tipping center   | center of buoyancy   | center of gravity  | turning center   |  |
| 4 | 970 | C | During cargo operations, your vessel develops a list due to the center of gravity rising above the transverse metacenter. To correct the list, you should _____. | shift weight to the high side  | shift weight to the centerline   | add weight in the lower holds or double bottoms  | remove weight from the lower holds or double bottoms                                 |  |
| 4 | 971 | B | When should you first have any food or water after boarding a lifeboat or liferaft?  | After 12 hours   | After 24 hours   | Within 48 hours  | Some food and water should be consumed immediately and then not until 48 hours later |  |
| 4 | 972 | D | Which statement concerning carbon dioxide is FALSE?  | It displaces the oxygen in the air.  | It cannot be seen.   | It cannot be smelled.  | It is safe to use near personnel in a confined space.                                |  |
| 4 | 973 | D | You are on a vessel that has a metacentric height of 1.0 foot and a beam of 40 feet. What can you expect the rolling period of the vessel to be?                 | 15.2 seconds   | 15.9 seconds   | 17.0 seconds   | 17.6 seconds   |  |
| 4 | 974 | B | On board small passenger vessels the minimum fill pipe size for a gasoline or diesel tank is _____.  | 2 1/2 inches nominal pipe size   | 1 1/2 inches nominal pipe size   | Not specified by the Regulations   | Large enough so it does not cause backpressure and fuel spillage                     |  |
| 4 | 975 | B | The waiting signal in code for all forms of signaling is _____.  | AR   | AS   | C  | RQ   |  |

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| 4 | 976 | D | Inflatable liferafts carried on passenger vessels must be annually _____.   | overhauled by the ship's crew                                | sent to the Coast Guard for servicing                             | sent to the steamship company shore repair facility          | sent to a Coast Guard approved service facility  |  |
| 4 | 977 | A | Which type of fire is the foam (stored-pressure type) fire extinguisher effective on?   | Classes A & B  | Classes A & C   | Classes B & C  | All of the above   |  |
| 4 | 978 | B | You have carbon tetrachloride as part of the cargo. If a fire breaks out in the general area, what is the major danger from the carbon tetrachloride? | It will explode if exposed to a flame.                       | Phosgene gas may be formed if it comes in contact with hot metal. | It will burn rapidly once ignited.                           | You cannot use water to fight the fire because it will react with the carbon tetrachloride.  |  |
| 4 | 979 | B | When should you first have any food or water after boarding a lifeboat or liferaft?   | After 12 hours   | After 24 hours  | Within 48 hours  | Some food and water should be consumed immediately and then not until 48 hours later.        |  |
| 4 | 980 | A | Assuming an even transverse distribution of weight in a vessel, which condition could cause a list?   | Empty double-bottoms and lower holds, and a heavy deck cargo | Flooding the forepeak to correct the vessel's trim                | Having KG smaller than KM                                    | Having a small positive righting arm   |  |
| 4 | 981 | B | Oily rags stored in a pile that is open to the atmosphere are a hazard because they may _____.  | deteriorate and give off noxious gasses                      | spontaneously heat and catch fire                                 | attract lice and other vermin and serve as a breeding ground | None of the above  |  |
| 4 | 982 | B | In continuous operation, the effective range of the 15 pound CO2 extinguisher is limited to _____.  | 2 to 4 feet  | 3 to 8 feet   | 9 to 12 feet   | 10 to 15 feet  |  |
| 4 | 983 | C | Your vessel has a metacentric height of 1.12 feet and a beam of 60 feet. Your average rolling period will be _____.                                   | 20 seconds   | 23 seconds  | 25 seconds   | 35 seconds   |  |
| 4 | 984 | D | The lifesaving signal indicated by a horizontal motion of a white light or white flare means _____.   | "Landing here highly dangerous"                              | "Negative"  | "Avast hauling"  | All of the above   |  |
| 4 | 985 | D | What should be used to send the group "Bearing 074° True"?  | A074T  | B074  | B074T  | A074   |  |
| 4 | 986 | B | According to Coast Guard Regulations (CFR 33), the shipboard Oil Pollution Emergency Plan must include _____.   | all information ordinarily provided in the Oil Record Book   | an explanation and purpose of the plan                            | a one-line schematic of the plan to be implemented           | the operating instructions for any and all oily-water separators installed aboard the vessel |  |

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| 4 | 987  | B | Which extinguishing agent will cool down a heated bulkhead in the least amount of time?                  | Water stream   | Water fog or spray  | Steam  | Dry chemical   |  |
| 4 | 988  | A | Which portable fire extinguisher should be used on a class C fire on board a vessel?                     | Carbon dioxide   | Water (stored pressure)   | Foam   | Carbon tetrachloride   |  |
| 4 | 989  | C | First-, second-, and third-degree burns are classified according to the _____.                           | area of the body burned  | source of heat causing the burn   | layers of skin affected  | size of the burned area  |  |
| 4 | 990  | A | If your vessel will list with equal readiness to either side, the list is most likely caused by _____.   | negative GM  | off-center weight   | pocketing of free surface  | excessive freeboard  |  |
| 4 | 991  | C | Fire extinguishing agents used on Class C fires must be _____.   | able to absorb heat  | water based   | nonconducting  | nontoxic   |  |
| 4 | 992  | D | On small passenger vessels gasoline tanks must be _____.   | electrically bonded to a common ground   | fitted with vertical baffle plates if the tank is longer than 30 inches in any horizontal dimension | built without flanged-up top edges   | All of the above   |  |
| 4 | 993  | D | If your vessel has a GM of one foot and a breadth of 50 feet, what will be your full rolling period?     | 11 seconds   | 15 seconds  | 20 seconds   | 22 seconds   |  |
| 4 | 994  | B | The signal to guide vessels in distress, which indicates, "This is the best place to land" is the _____. | horizontal motion of a white flag  | letter K in Morse code given by light   | code flag S as a hoist   | firing of a white star signal  |  |
| 4 | 995  | A | If you receive a message "A243" by any method of signaling, it would be referring to _____.              | bearing  | altitude  | diving   | speed  |  |
| 4 | 997  | A | Which fire-fighting agent is most effective at removing heat?  | Water spray  | Foam  | Carbon dioxide   | Dry chemical   |  |
| 4 | 998  | B | Fire extinguishers of sizes III, IV, and V are designated as _____.                                      | portable   | semi-portable   | fixed  | disposable   |  |
| 4 | 999  | A | A documented vessel operating over 50 miles offshore must carry an inflatable liferaft with a _____.     | SOLAS A pack   | SOLAS B pack  | coastal pack   | small vessel pack  |  |
| 4 | 1000 | D | A vessel continually lists to one side and has a normal rolling period. Which statement is TRUE?         | The vessel has negative GM.  | The center of gravity is on the centerline.   | The list can be corrected by reducing KM.  | The vessel has asymmetrical weight distribution.                                   |  |
| 4 | 1001 | B | Which statement about entering into a tank which has been sealed for a long time is TRUE?                | The tank should be tested only once to ensure the oxygen content is at least 14% before entry. | The tank must be tested at frequent intervals to ensure that hazardous gasses have not regenerated. | The tank need not be tested for oxygen content if it is ventilated for more than 24 hours. | If the oxygen content tests at less than 12% you should wear an approved gas mask. |  |

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| 4 | 1002 | D | How do you operate a portable CO2 fire extinguisher?  | Point the horn down.  | Turn cylinder upside-down.  | Break the rupture disc.                            | Pull pin, squeeze grip.   |         |
| 4 | 1003 | C | You are on a vessel that has a metacentric height of 4 feet, and a beam of 50 feet. What can you expect the rolling period of the vessel to be?   | 10.0 seconds  | 10.5 seconds  | 11.0 seconds                                       | 11.5 seconds  |         |
| 4 | 1004 | B | The lifesaving signal used to indicate, "Landing here highly dangerous" is _____.   | firing of a white star signal                                   | firing of a red star signal   | vertical motion of a red light                     | code letter "K" given by light or sound signaling apparatus           |         |
| 4 | 1005 | C | Which signal should be used to send the group "Distance 750 nautical miles"?  | D750  | D750N   | R750   | R750N   |         |
| 4 | 1006 | C | An immersion suit must be equipped with a(n) _____.   | air bottle for breathing  | orange smoke canister   | whistle, light and retroreflective material        | sea dye marker  |         |
| 4 | 1007 | D | What is the BEST conductor of electricity?  | Carbon dioxide  | Distilled water   | Fresh water  | Salt water  |         |
| 4 | 1008 | A | A minor heat burn of the eye should be treated by _____.  | gently flooding with water                                      | warming the eye with moist warm packs   | laying the person flat on his back                 | mineral oil drops directly on the eye                                 |         |
| 4 | 1009 | C | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.80 feet   | 1.89 feet   | 1.98 feet  | 2.05 feet   | ST-0021 |
| 4 | 1010 | A | Which action will best increase the transverse stability of a merchant vessel at sea?   | Ballasting the double bottom tanks                              | Deballasting the deep tanks   | Positioning a heavy lift cargo on the main deck    | Raising the cargo booms to the upright position                       |         |
| 4 | 1011 | C | Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?  | All towing vessels 25 feet or less in length                    | All passenger vessels of 50 gross tons or less, carrying one or more passengers | Power-driven vessels 20 meters in length or longer | An intermittently manned floating plant under the control of a dredge |         |
| 4 | 1012 | A | The discharge from a carbon dioxide fire extinguisher should be directed _____.   | at the base of the flames                                       | at the center of the flames   | to the lee side of the flames                      | over the tops of the flames   |         |
| 4 | 1013 | A | If it is impractical to use the fill line to sound the fuel tank, then the tank should be fitted with _____. (Small Passenger Vessel Regulations)   | a separate sounding tube or an installed marine type fuel gauge | An extra five gallon tank for reserve fuel                                      | A good air vent of sufficient diameter             | A glass tube to visually observe the fuel                             |         |
| 4 | 1014 | B | Which signal would be used by a shore rescue unit to indicate "Landing here highly dangerous"?  | The firing of a white star signal                               | Horizontal motion with a white flag   | Vertical motion of a white light                   | Code letter "K" by blinker light                                      |         |

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| 4 | 1015 | C | Which group should be used to send the signal Longitude 109°34'West?  | D0934   | LO10934W   | G10934   | L10934   |  |
| 4 | 1016 | C | What is the maximum length of time that distress flares are approved for?   | 1 and 1/2 years   | 2 years  | 3 and 1/2 years  | 5 years  |  |
| 4 | 1017 | A | The extinguishing agent most likely to allow reignition of a fire is _____.   | carbon dioxide  | foam   | water fog  | water stream   |  |
| 4 | 1019 | D | You are operating 10 miles offshore with three people aboard. What kind of survival craft must you carry?   | An inflatable liferaft with a coastal pack  | A life float   | An inflatable buoyant apparatus  | No survival craft is required.   |  |
| 4 | 1020 | B | Which vessels must comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?   | Towing vessels 25 feet in length or less  | Passenger vessels of 100 gross tons or greater, carrying one or more passengers for hire                   | Power-driven vessels 12 meters or less in length                             | All of the above   |  |
| 4 | 1021 | D | Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?  | Towing vessel 25 feet or less in length   | Passenger vessel of 50 GT or less, carrying one or more passengers for hire                                | Power-driven vessels 12 meters or less in length, operating on inland waters | Dredges engaged in operations likely to restrict navigation of other vessels in or near a channel or fairway   |  |
| 4 | 1022 | A | When fighting a fire on a bulkhead using a portable carbon dioxide extinguisher, the stream should be directed at the _____.  | base of the flames, moving the horn from side to side, following the flames upward as they diminish | top of the flaming area, moving the horn from side to side, following the flames downward as they diminish | center of the flaming area, moving the horn vertically from top to bottom    | bottom of the flaming area, moving the horn vertically to the top following the flames upward as they diminish |  |
| 4 | 1023 | D | Providing you are not in a special area, such as the Mediterranean or Red Sea, how many nautical miles from land must you be to throw packing materials that will float into the sea? | 3 nm  | 6 nm   | 12 nm  | 25 nm  |  |
| 4 | 1024 | D | The firing of a red star signal may mean _____.   | "This is the best place to land"  | "You are seen - assistance will be given as soon as possible"  | "Tail block is made fast"  | "Slack away"   |  |
| 4 | 1025 | B | Which group should be used to send the signal "Latitude 73°25'North"?   | G17325N   | L7325N   | LA7325N  | N7325  |  |
| 4 | 1026 | C | A liferaft with a capacity of 8 people used in ocean service is required by regulations to carry _____.   | 8 liters of fresh water   | 12 units of provisions   | 12 liters of fresh water   | 24 units of provisions   |  |

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| 4 | 1027 | C | What is the most important characteristic of the extinguishing agent in fighting a class "C" fire?   | Weight   | Temperature  | Electrical nonconductivity   | Cost  |  |
| 4 | 1028 | D | Symptoms of heat stroke are _____.   | cold and moist skin, high body temperature                             | cold and dry skin, low body temperature  | hot and moist skin, high body temperature  | hot and dry skin, high body temperature                               |  |
| 4 | 1029 | D | Which vessel(s) is(are) required to comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?                             | Towing vessel 26 feet in length or greater                             | Passenger vessels of 100 gross tons or greater, carrying one or more passengers for hire | Power-driven vessels 20 meters in length or greater  | All of the above  |  |
| 4 | 1030 | C | Which vessel(s) is(are) required to comply with the "Vessel Bridge-to-Bridge Radiotelephone Regulations" while navigating?                           | Towing vessels 25 feet or less in length, engaged in towing operations | Passenger vessel 50 gross tons or less, carrying passengers for hire                     | Dredges engaged in operations likely to restrict navigation of other vessels in or near a channel or fairway | An intermittently manned floating plant under the control of a dredge |  |
| 4 | 1031 | B | What is the major function of the deck water seal in an inert gas system?  | Relieves excessive pressures from the system.                          | Isolates hazardous areas from nonhazardous areas.  | Prevents the flow of inert gas into closed or isolated tanks.  | Removes any leftover water or soot after the gas has been scrubbed.   |  |
| 4 | 1032 | A | When used to fight fire, carbon dioxide _____.   | is effective if used promptly on an oil fire                           | has a greater cooling effect than water  | is lighter than air  | is harmless to cargo and crew   |  |
| 4 | 1033 | C | Your vessel has been in a collision. After assessing the damage, you begin down flooding. This will cause the KB to do what?                         | Fall   | Remain stationary  | Rise   | Shift to the high side  |  |
| 4 | 1034 | A | Which vessels must comply with the vessel bridge-to-bridge radiotelephone regulations while navigating?  | All towing vessels 26 feet in length or greater                        | All passenger vessels less than 100 gross tons   | All power-driven vessels 12 meters or less in length   | All of the above  |  |
| 4 | 1035 | D | The letter G, when sent with a complement, may be followed by _____.   | two numerals   | two letters  | three or four numerals   | four or five numerals   |  |
| 4 | 1036 | B | Life preservers must be marked with the _____.   | stowage space assigned   | vessel's name  | vessel's home port   | maximum weight allowed  |  |
| 4 | 1037 | C | What is the minimum size power-driven vessel, not engaged in towing, required to comply with the vessel bridge-to-bridge radiotelephone regulations? | 50 meters  | 25 meters  | 20 meters  | 12 meters   |  |

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| 4 | 1038 | D | You are piloting a vessel, which is required to have a radiotelephone, on the navigable waters of the United States. You must _____.  | maintain a listening watch and communicate in English                       | use the bridge-to-bridge VHF-FM designated frequency only to exchange navigational information or necessary tests | have on board an operator who holds a restricted radiotelephone operator permit or higher license, as well as a FCC ship station license | All of the above                              |         |
| 4 | 1039 | A | On board small passenger vessels, fill lines and sounding pipes of gasoline tanks must extend directly _____.   | to within one-half of their diameter from the bottom of the tank            | To within one-half foot from the bottom of the tank   | To the tank top  | Midway between the top and bottom of the tank |         |
| 4 | 1040 | D | General requirements for a vessel's radiotelephone station log are that _____.  | logs must be kept in an orderly manner                                      | erasures are not allowed  | it must identify the vessel's name and official number   | All of the above                              |         |
| 4 | 1041 | B | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2685 tons of cargo on board with a KG of 27.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 25.4 feet  | KG 26.0 feet  | KG 26.6 feet   | KG 27.2 feet                                  | ST-0022 |
| 4 | 1042 | D | Which danger exists to people when CO2 is discharged into a small enclosed space?   | Damaged eardrums  | Electric shock  | Frostbite  | Respiratory arrest                            |         |
| 4 | 1043 | A | Your vessel is damaged and on an even keel. There is no trim. The freeboard is reduced to less than 1 foot. The rolling period is very long, and the vessel is sluggish in returning from a roll. Which action would you take FIRST to improve stability?       | In calm seas lower the lifeboats to the water and keep them alongside.      | Rig the jumbo boom and use it to jettison heavy deck cargo.   | Press up a centerline double bottom that is now filled to 15% capacity.  | Pump out the peak tanks simultaneously.       |         |
| 4 | 1044 | C | What is the lifesaving signal for "You are seen - Assistance will be given as soon as possible"?  | Green star rocket   | Red star rocket   | Orange smoke signal  | Horizontal motion of a flag                   |         |
| 4 | 1045 | C | Which group would be used to send the signal Greenwich mean time 11:35 pm?  | GMT 1135PM  | T 2335 GMT  | Z 2335   | G 2335  |         |
| 4 | 1046 | D | On small passenger vessels a gasoline tank vent pipe must _____.  | have a cross sectional area not less than that of 19 millimeters OD tubing. | be connected to the tank at its highest point   | terminate in a U-bend as high above the weather deck as practicable  | All of the above                              |         |
| 4 | 1047 | A | The main advantage of a steady stream of water on a class "A" fire is that it _____.  | breaks up and cools the fire  | protects the firefighting crew  | removes the oxygen   | washes the fire away                          |         |



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| 4 | 1048 | A | The angle of maximum righting arm corresponds approximately to the angle of _____.  | deck edge immersion  | the load line   | downflooding   | loll   |         |
| 4 | 1049 | D | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.62 feet  | 2.82 feet   | 2.97 feet  | 3.15 feet  | ST-0023 |
| 4 | 1050 | D | A gasoline fuel tank vent on a small passenger vessel should terminate _____.   | As close to the deck plates as possible                          | Below the waterline to eliminate the accumulation of explosive vapors | Midway between the fuel tank and the engine                      | On the hull exterior as high above the waterline as practicable and remote from any hull opening |         |
| 4 | 1051 | B | The fresh air intake of the inert gas system _____,   | prevents the flue gas from falling below an oxygen content of 3% | allows the inert gas piping to be used for gas freeing the tanks      | opens when there is excessive vacuum on the deck water seal      | enables outside air to mix with and to cool the hot flue gasses                                  |         |
| 4 | 1052 | C | The danger associated with using carbon dioxide in an enclosed space is _____.  | frostbite  | skin burns  | asphyxiation   | an explosive reaction  |         |
| 4 | 1053 | D | Your vessel is damaged and listing to port. The rolling period is long, and the vessel will occasionally assume a starboard list. Which action should you take FIRST?   | Fill an empty double bottom tank on the starboard side           | Transfer all possible movable weights from port to starboard          | Pump out ballast from the port and starboard double bottom tanks | Press up a slack centerline double bottom tank   |         |
| 4 | 1054 | B | By day, the signal meaning, "This is the best place to land" is a _____.  | vertical motion of a red flag                                    | vertical motion of a white flag or the arms                           | white smoke signal   | white star rocket  |         |
| 4 | 1055 | D | The signal K4 sent by any method means _____.   | a distance of 4 miles  | a speed of 4 knots  | the wind is from the south                                       | "I wish to communicate with you by sound signals"  |         |
| 4 | 1056 | D | U.S.C.G. approved buoyant work vests are considered to be items of safety equipment and may be worn by members of the crew _____.   | in lieu of life preservers during fire drills                    | in lieu of life preservers during boat drills                         | in lieu of life preservers during an actual emergency            | when carrying out duties near a weather deck's edge  |         |
| 4 | 1057 | B | The primary method by which water spray puts out fires is by _____.   | removing the oxygen  | cooling the fire below the ignition temperature                       | removing combustible material                                    | diluting combustible vapors  |         |

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| 4 | 1058 | C | Which statement describes the relationship between flash point and auto-ignition temperature?   | Both are higher than normal burning temperatures.                                   | The flash point is always higher.   | The ignition temperature is always higher.                         | They are not necessarily related.  |         |
| 4 | 1059 | B | Provided every effort is made to preserve body moisture content by avoiding perspiration, how long is it normally possible to survive without water?                                      | Up to 3 days  | 8 to 14 days  | 15 to 20 days  | 25 to 30 days  |         |
| 4 | 1060 | C | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 26'-06", AFT 28'-10"  | FWD 26'-10", AFT 28'-05"  | FWD 27'-00", AFT 28'-03"   | FWD 27'-03", AFT 28'-00"   | ST-0024 |
| 4 | 1061 | B | What are the symptoms of sun stroke?  | Temperature falls below normal, pulse is rapid and feeble, skin is cold and clammy. | Temperature is high, pulse is strong and rapid, skin is hot and dry.                        | Temperature is high, pulse is slow and feeble, skin is clammy.     | Temperature falls below normal, pulse is rapid, skin is clammy.                  |         |
| 4 | 1062 | A | Weight is considered during the periodic required inspection and servicing of _____.  | CO2 (carbon dioxide) fire extinguishers   | foam fire extinguishers   | water (stored pressure) fire extinguishers                         | All of the above   |         |
| 4 | 1063 | D | Gasoline tank vent lines on board small passenger vessels must be fitted with removable flame screens _____.  | and 30 square inches of louvers   | three inches in diameter with a check valve to prevent water from entering in heavy weather | three inches in circumference inside the fill pipe                 | consisting of a single screen of at least 30 X 30 mesh, corrosion resistant wire |         |
| 4 | 1064 | C | By day, the horizontal motion of a white flag, or arms extended horizontally, by a person on the beach indicates _____.   | "Haul away"   | "Tail block is made fast"   | "Negative"   | "Affirmative"  |         |
| 4 | 1065 | C | Upon hearing the abandon ship signal, you put on your life jacket and report to your station. After the cover is removed you board your open lifeboat. The FIRST thing to do is to _____. | release the gripes  | release tricing pendants  | put the cap on the drain   | lift the brake handle  |         |
| 4 | 1066 | D | Coast Guard approved buoyant work vests _____.  | may be substituted for 10 percent of the required life preservers                   | should be stowed adjacent to lifeboats and emergency stations                               | may be used by boat crews and line handlers during lifeboat drills | should be used when carrying out duties near a weather deck's edge               |         |
| 4 | 1067 | B | A large oil fire on the deck of a ship can be fought most effectively with _____.   | dry chemical  | foam  | high-velocity fog  | Water (cartridge-operated)   |         |

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|---|------|---|--|--|--|---|---|--|
| 4 | 1068 | B | The "flammable limits" of an atmosphere are the _____.   | two temperatures between which an atmosphere will self ignite    | upper and lower percentage of vapor concentrations in an atmosphere which will burn if an ignition source is present | upper and lower pressures between which an atmosphere will not burn | two temperatures between which an atmosphere will burn if an ignition source is present |  |
| 4 | 1069 | B | After the initial AMVER Position Report, sent by a vessel sailing foreign, subsequent Position Reports must be sent no less frequently than every _____.                             | Monday, Wednesday, and Friday                                    | 48 hours   | 36 hours  | 24 hours  |  |
| 4 | 1070 | D | On small passenger vessels, fuel lines may be made of _____.   | plastic, rubber, or seamless steel tubing                        | stainless steel, iron, or brass  | copper, plastic, stainless steel, or galvanized iron                | annealed tubing of copper, nickel-copper, or copper nickel                              |  |
| 4 | 1071 | D | Aboard small passenger vessels, which material may be used for diesel fuel line installations but not for gasoline fuel lines?   | Annealed copper tubing   | Nickel-copper tubing   | Copper-nickel tubing  | Seamless steel pipe or tubing   |  |
| 4 | 1073 | A | Your vessel is damaged and partially flooded. It is listing 12° to port and trimmed 8 feet down by the head. It has a long, slow, sluggish roll. Which action should you take FIRST? | Press up an after, slack, centerline double bottom tank          | Pump out the forepeak tank   | Jettison the anchors and anchor cables                              | Jettison deck cargo from the port side  |  |
| 4 | 1074 | A | Which one of the following signals is made at night by a lifesaving station to indicate "Landing here highly dangerous"?   | Horizontal motion of a white light or flare                      | Vertical motion of a white light or flare  | White star rocket   | Vertical motion of a red light or flare   |  |
| 4 | 1075 | C | Prior to lowering the lifeboat, the most important item to check is the _____.   | oars   | sail   | boat plug   | life preservers   |  |
| 4 | 1076 | C | The life jackets on all vessels shall be _____.  | inspected weekly   | worn at all times  | readily available   | tested yearly   |  |
| 4 | 1077 | B | A vessel's KG is determined by _____.  | dividing the total longitudinal moment summation by displacement | dividing the total vertical moment summation by displacement   | multiplying the MT1 by the longitudinal moments                     | subtracting LCF from LCB  |  |
| 4 | 1078 | B | The explosive range of Bunker C mixed with air is _____.   | 0% to 1% by volume   | 1% to 5% by volume   | 5% to 10% by volume   | 10% to 20% by volume  |  |
| 4 | 1079 | A | Which alarm is NOT found on an inert gas system?   | Low oxygen alarm   | Low pressure alarm   | Scrubber high water level alarm                                     | Deck seal low water alarm   |  |

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| 4 | 1080 | D | A vessel to which Annex V to MARPOL 73/78 applies is located in a MARPOL designated special area, 14 nautical miles from nearest land. What type of garbage is permitted to be discharged? | Paper products   | Glass ground to less than 1"                               | Metal ground to less than 1"                | Food waste  |  |
| 4 | 1081 | D | All of the following are part of the fire triangle EXCEPT _____.   | heat   | oxygen   | fuel  | electricity   |  |
| 4 | 1082 | B | Which statement is TRUE concerning combustible gas indicators?   | One sample of air is adequate to test a tank.                        | They do not work properly where there is a lack of oxygen. | They will detect a lack of oxygen.          | They are calibrated to read the percentage chance of explosion. |  |
| 4 | 1083 | A | On board small passenger vessels, fittings used in a gasoline supply line must be _____.   | made of non-ferrous metal, and be a flare or non-bite flareless type | an interlocking type                                       | a silver-soldered type                      | an asbestos covered type  |  |
| 4 | 1084 | D | On small passenger vessels, what type of devices are required at both the tank and engine connections of all internal combustion engine fuel lines?  | Clean out plates   | Fuel gauges  | Drain valves                                | Shut-off valves   |  |
| 4 | 1085 | C | When lowering lifeboats in heavy seas, a good practice is to rig frapping lines _____.   | on only the forward falls  | on only the after falls                                    | with a lead of about 45 degrees to the boat | from the falls to the main deck of the vessel                   |  |
| 4 | 1086 | D | Required lifesaving equipment on existing vessels may be continued in use on the vessel if _____.  | kept on board no more than 2 years                                   | inspected and serviced every 6 months                      | destroyed if more than 5 years old          | maintained in good and serviceable condition                    |  |
| 4 | 1087 | D | A combination or all-purpose nozzle produces _____.  | low-velocity fog only  | a solid stream only  | a solid stream and foam                     | a solid stream and fog  |  |
| 4 | 1088 | A | The flash point of a liquid means the temperature _____.   | at which a liquid will give off flammable vapors                     | at which a liquid will burn steadily                       | at which a liquid will explode              | that a liquid must reach before it will flow readily            |  |
| 4 | 1089 | C | During counterflooding to correct a severe list aggravated by an off-center load, your vessel suddenly takes a list or trim to the opposite side. You should _____.                        | continue counterflooding in the same direction                       | continue counterflooding, but in the opposite direction    | immediately stop counterflooding            | deballast from the low side                                     |  |

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| 4 | 1090 | D | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.80 feet   | 1.89 feet                                      | 1.98 feet   | 2.05 feet                       | ST-0025 |
| 4 | 1091 | B | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.49 feet   | 2.38 feet                                      | 2.27 feet   | 2.05 feet                       | ST-0026 |
| 4 | 1092 | A | Which statement is TRUE concerning a combustible gas indicator?   | Several seconds will elapse between the taking of a sample and the reading appearing on the dial. | The instrument will operate in any atmosphere. | Toxicity of the atmosphere is measured by the instrument. | All of the above                |         |
| 4 | 1093 | B | On small passenger vessels, which device(s) must be fitted to a fuel line's tank connection?  | A fuel strainer   | A shut-off valve                               | A tubular glass gauge to indicate the fuel level          | All of the above                |         |
| 4 | 1094 | C | A small craft advisory forecasts winds of up to what speed?   | 16 kts.   | 24 kts.  | 33 kts.   | 48 kts.                         |         |
| 4 | 1095 | C | When launching a lifeboat, frapping lines should be rigged _____.   | before the gripes are released  | before the boat is moved from the davits       | at the embarkation deck                                   | after the boat is in the water  |         |
| 4 | 1096 | A | What is the minimum number of ring life buoys required on board a 275-foot cargo vessel engaged in coastwise trade, under the alternatives for cargo vessels in a specified service?  | 6   | 8  | 12  | 14                              |         |
| 4 | 1097 | A | Foam extinguishes a fire by _____.  | shutting off the air supply   | cooling the fuel to below ignition temperature | dispersing the fuel                                       | removing the source of ignition |         |

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| 4 | 1098 | A | Which statement is TRUE concerning the "flash point" of a substance?  | It is lower than the ignition temperature.           | It is the temperature at which a substance will spontaneously ignite. | It is the temperature at which a substance, when ignited, will continue to burn. | It is the temperature at which the released vapors will fall within the explosive range. |  |
| 4 | 1099 | A | On small passenger vessels, shut-off valves must be installed on both gasoline and diesel fuel supply lines _____.                                | at the tank and the engine end of the fuel line      | outside the engineroom on the fill and vent lines                     | only at the tank end of the fuel line  | only at the engine end of the fuel line  |  |
| 4 | 1100 | C | The maximum speed of lowering for a lifeboat on gravity davits is controlled by the _____.  | limit switches                                       | emergency disconnect switch   | governor brake   | position of the counterweight on the brake handle  |  |
| 4 | 1101 | A | A crew member has suffered frostbite to the toes of the right foot. Which is NOT an acceptable first aid measure?                                 | Rub the toes briskly.                                | Elevate the foot slightly.  | Rewarm rapidly.  | Give aspirin or other medication for pain if necessary.                                  |  |
| 4 | 1102 | D | While using a combustible gas indicator, if the hydrocarbon content of the atmosphere exceeds the U.E.L., the needle of the indicator will _____. | remain at zero without moving                        | move to the maximum reading and stay there                            | move halfway up the scale  | move to the maximum reading and immediately return to zero                               |  |
| 4 | 1103 | A | A vessel is "listed" when it is _____.  | inclined due to an off-center weight                 | inclined due to the wind  | down by the head   | down by the stern  |  |
| 4 | 1104 | C | When there is a small craft advisory winds are predicted up to _____.   | 15 knots   | 24 knots  | 33 knots   | 42 knots   |  |
| 4 | 1105 | D | In launching a lifeboat, when should the tricing pendants be released?  | Before the boat is lowered from the stowage position | As soon as the boat-fall blocks clear the davit head                  | After the limit switch is activated  | After all people have been embarked  |  |
| 4 | 1106 | C | On small passenger vessels, when may a flexible hose be used in gasoline or diesel fuel lines?  | In diesel installations only                         | In gasoline installations only  | In both diesel and gasoline installations  | In neither diesel nor gasoline installations   |  |
| 4 | 1107 | B | In the production of chemical foam by a continuous-type generator _____.  | the maximum water pressure to be used is 50 psi      | the speed of foam production is slower at lower water temperatures    | each pound of foam powder produces about 800 gallons of chemical foam            | fresh water only should be used  |  |
| 4 | 1108 | A | The vapor pressure of a substance _____.  | increases with the temperature                       | decreases as temperature increases                                    | is not affected by temperature   | may increase or decrease as the temperature rises  |  |
| 4 | 1109 | D | On small passenger vessels, drains or outlets for drawing off diesel fuel from water traps or strainers _____.                                    | must be located at the lowest portion of the tank    | must have only a gravity-forced flow                                  | must be extended to an external area of the hull                                 | are permitted  |  |

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| 4 | 1110 | C | Limit switches on gravity davits should be tested by _____.   | the engineers, from a panel in the engine room  | shutting off the current to the winch  | pushing the switch lever arm while the winch is running          | All of the above   |        |
| 4 | 1111 | D | On small passenger vessels, outlets in fuel lines are permitted _____.  | to tap fuel for cleaning parts and engine wash down   | for inspection purposes only   | to bleed fuel lines  | under no circumstances in gasoline installations   |        |
| 4 | 1112 | D | A combustible gas indicator meter is calibrated to read the percentage of _____.  | vapor to oxygen   | the flammable limit concentration  | the autoignition concentration                                   | the lower explosive limit concentration  |        |
| 4 | 1114 | D | The National Weather Service differentiates between small craft, gale, whole gale, and hurricane warnings by the _____. | amount of rain forecasted   | wave heights forecasted  | amount of cloud cover forecasted                                 | wind speed forecasted  |        |
| 4 | 1115 | C | When launching a lifeboat, the tricing pennants should be released _____.   | before the boat is lowered from the stowed position   | as the boat-fall blocks break clear of the davit head  | before the boat is lowered from the embarkation level            | after the boat is released into the water  |        |
| 4 | 1116 | C | Line throwing apparatus aboard ship must contain _____.   | two rockets, one of which shall be the buoyant type   | three rockets, one of which shall be the buoyant type  | four rockets, two of which shall be the buoyant type             | five rockets, two of which shall be the buoyant type   |        |
| 4 | 1117 | D | Production of mechanical foam by a portable in-line foam proportioner _____.  | increases the size of foam bubbles formed   | increases the rate of foam production  | improves the extinguishing properties of foam                    | gives the nozzleman more freedom of movement, since it can be placed anywhere in the hose line |        |
| 4 | 1118 | B | The volatility of a flammable liquid is indicated by its _____.   | ignition temperature  | flash point  | flammable range  | conversion index   |        |
| 4 | 1119 | D | A fill pipe for a gasoline tank on board a small passenger vessel must be _____.  | arranged so neither liquid gasoline nor its vapors can overflow or escape inside the vessel | terminated on the weather deck and extend to within one-half of its diameter from the bottom of the tank | fitted with a suitably marked watertight deck plate or screw cap | All of the above   |        |
| 4 | 1120 | D | You will find a limit switch on a _____.  | liferaft cradle   | radial davit   | sheath-screw davit   | gravity davit  |        |
| 4 | 1121 | D | In shown, number 1 operates the _____.  | releasing gear  | McCluney hook  | sea painter  | Fleming gear   | D011SA |
| 4 | 1122 | A | A combustible gas indicator will operate correctly ONLY when the _____.   | hydrocarbon content of the atmosphere is less than the U.E.L.                               | atmosphere is deficient in oxygen  | compartment to be tested is free of CO2                          | All of the above   |        |

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| 4 | 1123 | B | On small passenger vessels, all spaces containing gasoline-powered machinery or gasoline storage tanks must be ventilated with _____.                                     | mechanical air supply fans and natural exhaust   | natural air supply and mechanical exhaust fans  | cowls and scoops which can be closed during foul weather   | air conditioning to control moisture   |  |
| 4 | 1124 | D | Spaces containing gasoline-powered machinery or gasoline storage tanks on small passenger vessels should have ventilator ducts that extend to the bilges because _____.   | air is heavier than gas fumes  | oil and water mix there   | it prevents air from entering or leaving the space   | Gasoline vapors are heavier than air, tend to settle in the bilges, and create an explosion hazard           |  |
| 4 | 1125 | B | What is the best procedure for picking up a lifeboat at sea while utilizing the lifeboat's sea painter?   | Place the lifeboat ahead and to windward of your vessel with the wind about broad on the bow of your ship. | Place the lifeboat ahead and to leeward of your ship with the wind about broad on the bow of your ship. | Place your ship to windward of the lifeboat with the wind on the quarter to allow your ship to drift down to the lifeboat. | Place the lifeboat ahead and to windward of your ship with the wind about broad on the quarter of your ship. |  |
| 4 | 1126 | A | Aboard small passenger vessels which type(s) of ventilation must be provided for enclosed spaces containing gasoline engines or gasoline fuel tanks?                      | Natural supply and mechanical exhaust  | At least one opening to the exterior of the hull  | Mechanical supply and natural exhaust  | All of the above   |  |
| 4 | 1127 | C | Compared to the amount of concentrated foam liquid used, the amount of low expansion mechanical foam produced is _____.   | 97 times greater   | 94 times greater  | 10 times greater   | 2 times greater  |  |
| 4 | 1128 | C | Most small passenger vessels have an auxiliary steering arrangement. According to the regulations, which is acceptable as a substitute for the auxiliary steering system? | A threefold purchase, rove to advantage  | A spare rudder, stowed so it can be readily mounted   | A suitable hand tiller, approved by the OCMI   | All of the above   |  |
| 4 | 1129 | C | Which function is NOT provided by the scrubber of an inert gas system?  | Cools the inert gas.   | Removes particulate matter like soot.   | Maintains gas pressure in the tanks.   | Removes chemical impurities from the gas.  |  |
| 4 | 1130 | C | What is the purpose of the limit switch on gravity davits?  | To cut off the power when the davits hit the track safety stops  | To stop the davits from going too fast  | To cut off the power when the davits are about 12 inches or more from the track safety stops                               | None of the above  |  |
| 4 | 1131 | C | If you observe any situation which presents a safety or pollution hazard during fuel transfer operations, what action should you take FIRST?                              | Close the valves at the transfer manifold  | Notify the person in charge of the shore facility   | Shut down the transfer operation   | Sound the fire alarm   |  |



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| 4 | 1132 | C | According to 46 CFR Subchapter T, how long should exhaust blowers be operated in enclosed spaces containing gasoline powered machinery before starting the engine?  | For at least four to five minutes  | Long enough to achieve a minimum of two complete air changes   | Long enough to achieve at least one complete change of air                              | No fixed amount, but the blower should run until you don't smell any gas                            |         |
| 4 | 1133 | B | If you must enter water on which there is an oil fire, you should _____.  | protect your life preserver by holding it above your head                      | enter the water on the windward side of the vessel   | keep both hands in front of your face to break the water surface when diving head first | wear very light clothing  |         |
| 4 | 1134 | D | On board small passenger vessels, ducts for compartments which contain gasoline powered machinery or gasoline storage tanks _____.  | must not allow any appreciable vapor flow except through their normal openings | must be of rigid, permanent construction   | must lead as directly as possible and be properly fastened and supported                | All of the above  |         |
| 4 | 1135 | C | Which statement about the bilge piping system of "T-Boats" that are more than 26 feet in length is NOT correct?   | Each watertight compartment must have its own bilge suction line or pump       | Each space's bilge suction connection to a manifold must have stop and check valves, or a stop-check valve | All bilge piping must be at least 2" inside-diameter brass pipe                         | Bilge suction strainers must have an open area not less than three times the area of the bilge pipe |         |
| 4 | 1136 | B | The breaking strength of the service lines of the rockets used with an impulse-projected, rocket type line throwing appliances is _____.  | 300 lbs  | 500 lbs  | 1000 lbs  | 1500 lbs  |         |
| 4 | 1137 | A | One gallon of low expansion foam solution will produce about _____.   | 10 gallons of foam   | 25 gallons of foam   | 100 gallons of foam   | 500 gallons of foam   |         |
| 4 | 1138 | D | What is LEAST likely to cause ignition of fuel vapors?  | Static electricity   | An open running electric motor   | Loose wiring  | Explosion proof lights  |         |
| 4 | 1139 | D | You are at the helm of a sloop-rigged sailing vessel under sail on the port tack, on a beam reach, with all appropriate sails set and properly trimmed. You are instructed to "head up quickly". To utilize your sails to assist with the turn, you should _____. | slack the main sheet   | slack the main outhaul   | trim the foreguy  | slack the jib sheet   |         |
| 4 | 1140 | B | Limit switches are used on which davits?  | Sheath-screw davits  | Gravity davits   | Radial davits   | Quadrantal davits   |         |
| 4 | 1141 | D | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?  | 2.15 feet  | 2.05 feet  | 1.85 feet   | 1.52 feet   | ST-0027 |

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| 4 | 1142 | B | While testing a cargo tank, your oxygen indicator reads 25% oxygen in the tank. You would then _____.   | enter the tank safely  | suspect the accuracy of the reading                            | ventilate the tank   | test for nitrogen  |  |
| 4 | 1143 | D | For pumping the bilges, a 54 foot long "T-Boat", which is not a ferry, but is certificated to carry 30 passengers, must be fitted with at least _____.              | one fixed power pump and one portable hand pump                | one fixed hand pump and one portable hand pump                 | two portable hand pumps  | either "A" or "B"  |  |
| 4 | 1144 | A | Aboard a 60 foot long small passenger vessel (other than a ferry) which is certificated to carry 33 persons, the minimum capacity required per bilge pump is _____. | 10 gallons per minute  | 19 gallons per minute  | 38 gallons per minute  | 50 gallons per minute  |  |
| 4 | 1145 | C | When hoisting a boat on gravity type davits using an electric motor driven winch, the davit arms should be brought up _____.  | to their final position with the winch operating at slow speed | to the bar stop, and then hand cranked to their final position | until just before they make contact with the limit switch, and then hand cranked to their final position | to the embarkation deck, and then hand cranked to their final position |  |
| 4 | 1146 | A | Which vessel is NOT required to carry a rocket-type line throwing appliance?  | An oceangoing vessel of 140 GT                                 | A coastwise vessel of 550 GT                                   | An river-going vessel of 760 GT  | All of the above   |  |
| 4 | 1147 | C | In addition to a portable hand-operated bilge pump, a 55 foot long ferry must have a fixed power operated bilge pump capable of pumping at least _____.             | 5 GPM  | 10 GPM   | 25 GPM   | 50 GPM   |  |
| 4 | 1148 | A | Spontaneous combustion is most likely to occur in _____.  | rags soaked in linseed oil                                     | overloaded electrical circuits                                 | dirty swabs and cleaning gear  | partially loaded fuel tanks  |  |
| 4 | 1149 | A | If the metacentric height is small, a vessel will _____.  | be tender  | have a quick and rapid motion                                  | be stiff   | yaw  |  |
| 4 | 1150 | B | After the boat is at the top of the davit heads, the davit arms begin moving up the tracks and are stopped by the _____.  | hoist man  | limit switch   | brake handle   | preventer bar  |  |
| 4 | 1151 | A | Treatment of sunstroke consists principally of _____.   | cooling, removing to shaded area, and lying down               | bathing with rubbing alcohol                                   | drinking ice water   | All of the above   |  |
| 4 | 1152 | C | Hand tillers are only accepted as an auxiliary means of steering if _____.  | they are at least 6 feet long                                  | they are not operated through a reduction gear                 | they are found satisfactory by the cognizant OCMI  | Both A and C above   |  |
| 4 | 1153 | C | According to 46 CFR Subchapter T, rigid plastic and other nonmetallic piping materials _____.   | may replace metal pipe or tubing in any installation           | may not be used on inspected vessels                           | may only be used in non-vital systems  | are preferable to steel pipe   |  |

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| 4 | 1154 | D | On a small passenger vessel, backfire flame arrestors are installed on a/an _____.  | oil fired turbine or reciprocating steam engine                  | turbocharged diesel engine  | natural gas (propane) engine                                   | gasoline powered engine  |         |
| 4 | 1155 | A | When picking up a lifeboat at sea with way on the ship, the sea painter should be secured _____.  | well forward in the lifeboat                                     | about amidships in the lifeboat   | well aft in the lifeboat                                       | only after the falls have been attached                            |         |
| 4 | 1156 | B | Which statement is TRUE concerning the testing of the line-throwing appliance?  | It shall be fired at least once in every three months.           | A drill in its use shall be held once in every 3 months.                  | Drills shall be held quarterly and it shall be fired annually. | No drills are required.  |         |
| 4 | 1157 | B | When using the combustible gas indicator, a special filter for filtering the incoming sample must be used if the atmosphere being tested contains vapors of _____.  | sour crude   | leaded gasoline   | CO2  | chlorine   |         |
| 4 | 1158 | C | Spontaneous combustion is caused by _____.  | an outside heat source heating a substance until it ignites      | conduction of heat through a wall of material to the substance            | chemical action within a substance                             | All of the above   |         |
| 4 | 1159 | C | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3315 tons of cargo on board with a KG of 27.0 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 26.2 feet   | KG 27.4 feet  | KG 28.6 feet   | KG 30.1 feet   | ST-0028 |
| 4 | 1161 | D | You are approaching another vessel and see that she has the signal flag "A" hoisted. What should you do?  | Give the vessel a wide berth as she is carrying dangerous goods. | Attempt to call the vessel on VHF radiotelephone because she is disabled. | Stop your vessel instantly.                                    | Slow your vessel and keep well clear because she has a diver down. |         |
| 4 | 1162 | B | Which instrument is suitable for determining the presence of explosive concentrations of fuel oil vapors in tanks?  | A flame safety lamp  | A combustible gas indicator   | A liquid cargo meter   | All of the above   |         |
| 4 | 1163 | C | Individual wires, used in systems greater than 50 volts, _____.   | should be supported at 24 inch intervals with plastic tie wraps  | should never be located in a tank   | must be installed in conduit                                   | All of the above   |         |
| 4 | 1164 | B | A drill must be conducted in the use of the line throwing appliance at least once in every _____.   | 2 months   | 3 months  | 4 months   | 5 months   |         |

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| 4 | 1165 | C | When in command of a lifeboat under oars, the command "Backwater" means to _____.   | lift oars to vertical position, trim blades fore and aft with handles resting on footings | complete the stroke, come to "Oars", raise oars smartly to vertical, rest handles on footing, trim blades fore and aft | row in astern motion  | complete stroke, stop rowing, dip blade about halfway into water, hold water to stop the way on the boat |         |
| 4 | 1167 | D | A pumproom is suspected of accumulating gases after a ventilation machinery breakdown. Where should the combustible gas indicator case be placed when testing the pumproom atmosphere for combustible gases?  | In the lower level of the pumproom  | In the middle level of the pumproom  | In the upper level of the pumproom  | On the deck outside the pumproom   |         |
| 4 | 1168 | C | What is the maximum oxygen content below which flaming combustion will no longer occur?   | 1%  | 10%  | 15%   | 21%  |         |
| 4 | 1169 | B | Your vessel's draft is 24'-06" forward and aft. The MT1 of your vessel is 1000 ft-tons. How many tons of cargo must be loaded in number 4 hold, which is 100 feet abaft the tipping center, if she is to have a 2 foot drag?  | 120 tons  | 240 tons   | 300 tons  | 480 tons   |         |
| 4 | 1170 | B | When operating gravity davits, the _____.   | gripes should be released after the boat is moving  | davits should always be hand cranked the last 12 inches into the final stowed position                                 | boats are generally lowered by surging the falls around cruciform bitts           | tricing pendant should be tripped prior to releasing the gripes  |         |
| 4 | 1171 | C | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.62 feet   | 2.82 feet  | 2.97 feet   | 3.15 feet  | ST-0029 |
| 4 | 1172 | B | What could result in an incorrect oxygen concentration reading on the oxygen indicator?   | Exposure to carbon dioxide for no more than 1 minute                                      | Exposure to carbon dioxide for more than 10 minutes  | Exposure to a very low concentration of sulfur dioxide for no more than 2 minutes | None of the above  |         |
| 4 | 1173 | A | On small passenger vessels all connections to electrical conductors MUST be _____.  | made within enclosures  | served and parceled with the lay, turned and wormed the other way  | installed only by a licensed marine electrician                                   | inspected annually by the Coast Guard  |         |

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| 4 | 1174 | D | In general, batteries aboard small passenger vessels should be _____.   | as high above the bilge as practicable   | stowed in well-ventilated spaces to allow dissipation of any gases generated    | accessible for maintenance and removal        | All of the above   |         |
| 4 | 1176 | C | Your vessel is required to have an impulse-projected line throwing appliance. The auxiliary line must _____.  | be of a light color  | be 250 meters in length   | have a breaking strength of 9000 lbs          | be made of synthetic material  |         |
| 4 | 1177 | C | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?  | 1.20 feet  | 1.64 feet   | 2.26 feet                                     | 3.00 feet  | ST-0030 |
| 4 | 1178 | C | The lowest temperature required to cause self-sustained combustion of a substance independent of any outside source of ignition is called _____.  | explosive range  | flash point   | ignition temperature                          | combustion temperature   |         |
| 4 | 1179 | B | Storage batteries on "T-Boats" must be located _____.   | in sight of the main engine(s)   | in a tray lined with suitable material that resists damage from the electrolyte | in locked closets with restricted ventilation | near the bilge to lower the center of gravity and improve stability  |         |
| 4 | 1181 | A | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4145 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 25.0 feet   | KG 25.6 feet  | KG 26.2 feet                                  | KG 26.8 feet   | ST-0031 |
| 4 | 1182 | A | An oxygen indicator can be used to determine if there is _____.   | sufficient oxygen in a compartment to support life                                 | combustible gases present   | hydrogen gas present                          | All of the above   |         |
| 4 | 1183 | C | The engine in a covered lifeboat is fueled with _____.  | leaded gasoline  | unleaded gasoline   | diesel oil                                    | liquefied gas  |         |
| 4 | 1184 | B | If an inflatable liferaft is to be released manually, where should the operating cord be attached before throwing the raft overboard?   | Do not attach the cord to anything but throw it overboard with the raft container. | Attach the cord to a fixed object on the ship.                                  | You should stand on the cord.                 | Attach the cord to the special pad eye on the "raft davit launcher". |         |

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|---|------|---|---|---|---|---|--|---------|
| 4 | 1185 | D | If the steersman of your lifeboat gives the command "Way enough", you should _____.   | complete the stroke, hold your oar out from the boat and level with the water | dip the blade of your oar into the water and leave it there           | lift your oar to a vertical position                        | complete the stroke, raise your oar slightly, swing it forward, and place it in the boat |         |
| 4 | 1187 | C | A self-contained breathing apparatus is used to _____.  | make underwater repairs to barges   | determine if the air in a tank is safe for men                        | enter areas that may contain dangerous fumes or lack oxygen | resuscitate an unconscious person  |         |
| 4 | 1188 | B | The most effective way to apply a foam stream if the fire is on deck or is a running fire, is to direct the stream _____.   | onto the surface of the burning liquid  | ahead of the burning liquid and bounce it on the fire                 | at the base of the burning liquid in a sweeping motion      | just above the surface of the burning liquid   |         |
| 4 | 1189 | B | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.62 feet   | 2.82 feet   | 2.97 feet   | 3.15 feet  | ST-0032 |
| 4 | 1190 | D | What could be a result of insufficient lubrication of lifeboat winches and davits?  | Moisture accumulation in winch motor damaging the electrical wiring           | Freezing of gears in cold weather                                     | Corroding of sheaves on the davits so they will not rotate  | All of the above   |         |
| 4 | 1191 | B | According to the T-Boat regulations the reason for providing adequate ventilation for a battery storage area is to prevent _____.   | accumulation of carbon dioxide gas that chokes the battery                    | accumulation of explosive and toxic gases the battery can generate    | mildew or dry rot in the battery box                        | battery failure including battery case meltdown caused by excessive heat                 |         |
| 4 | 1192 | C | Which statement is TRUE concerning the oxygen indicator?  | Exposure to flue gas has no effect on the instrument.                         | Only one level of the tested space need be sampled by the instrument. | Prolonged exposure to CO2 can result in false readings.     | The instrument can detect hydrogen gas.  |         |
| 4 | 1193 | C | On small passenger, vessels spaces containing batteries require good ventilation because it _____.  | adds as much as 2 volts to battery performance                                | supplies extra nitrogen for the battery                               | helps dissipate flammable gas accumulations                 | allows less soda water to be used in the diodes  |         |

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| 4 | 1194 | C | Which operation should be done when launching an inflatable liferaft by hand?   | Open the liferaft casing.   | Turn the valve on the CO2 cylinder to start inflation.              | Make sure the operating cord is secured to the vessel before throwing it over the side. | After inflation, detach operating cord from liferaft.            |  |
| 4 | 1195 | B | The command "Oars" means to _____.  | lift the oars to a vertical position                                  | complete the stroke and bring the oars horizontal, blades feathered | place the oars in the boat with blades forward  | place the oars in the rowlocks directly from the boated position |  |
| 4 | 1196 | B | The knife on an inflatable liferaft will always be located _____.   | in one of the equipment bags  | in a special pocket near the forward entrance                       | on a cord hanging from the canopy   | in a pocket on the first aid kit                                 |  |
| 4 | 1197 | D | A squeeze-grip type carbon-dioxide portable fire-extinguisher has been partially discharged. It should be _____.  | replaced in its proper location if weight loss is no more than 15%    | replaced in its proper location if weight loss is no more than 25%  | replaced in its proper location regardless of weight                                    | labeled empty and recharged as soon as possible                  |  |
| 4 | 1198 | B | Lead-acid batteries used aboard "T-Boats" must have terminal connections that are _____.  | the spring slip style   | a permanent type  | located so as to be easily greased  | temporarily clamped on the top of the battery                    |  |
| 4 | 1199 | D | To prevent damage by and to storage batteries aboard small passenger vessels they should be located _____.  | in trays constructed of material that is resistant to the electrolyte | so as to prevent movement when the vessel pitches and rolls         | in a well ventilated area   | All of the above   |  |
| 4 | 1200 | A | What is TRUE concerning frapping lines?   | They are used to steady a lifeboat when lowered.                      | They are normally attached to the davit span.                       | They are needed only on radial davits.  | They are used to clear the puddings.                             |  |
| 4 | 1201 | D | While taking on fuel oil, the transfer hose leaks causing a sheen on the water. You should _____.   | apply dispersants to the sheen  | repair the leak with duct tape                                      | reduce the rate of transfer   | shut down operations   |  |
| 4 | 1202 | B | Which is the most accurate instrument for measuring the amount of oxygen in the atmosphere of a confined space?   | Combustible gas indicator   | Oxygen indicator  | Flame safety lamp   | All of the above   |  |
| 4 | 1203 | D | You are discharging cargo and the inert gas system is in operation to inert the tanks. The pressure in a tank being discharged starts to drop below the allowable limit. What action should you take? | Cut in another IG fan to increase gas flow.                           | Open the pressure control valve until the pressure increases.       | Open the tank isolation valve to the fully open position.                               | Reduce the pumping rate.   |  |
| 4 | 1204 | A | Generally, when lifting an inflatable liferaft back aboard ship you would use the _____.  | towing bridle   | main weather cover  | external lifelines  | righting strap   |  |

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| 4 | 1205 | B | On board small passenger vessels, storage batteries containing an electrolyte must be set in trays constructed of _____.       | a fireproof material  | a material resistant to damage by the electrolyte                 | a porous material that permits drainage of any acid overflow    | suitably strong to hold the weight of the batteries                    |  |
| 4 | 1206 | D | Inflatable liferafts are provided with a _____.  | knife   | towing connection   | lifeline  | All of the above   |  |
| 4 | 1207 | D | Which extinguishing agent is most effective on a mattress fire?  | CO2   | Foam  | Dry Chemical  | Water  |  |
| 4 | 1208 | D | A vessel aground may have negative GM since the _____.   | decrease in KM is equal to the loss of draft                  | virtual rise of G is directly proportional to the remaining draft | lost buoyancy method is used to calculate KM, and KB is reduced | displacement lost acts at the point where the ship is aground          |  |
| 4 | 1209 | B | According to 46 CFR Subchapter T the purpose of fuses in electric wiring is to _____.  | allow for cutting out branch circuits                         | prevent overloading the circuits                                  | reduce voltage to the branch circuits                           | permit the use of smaller wiring for lighting circuits                 |  |
| 4 | 1210 | C | The tricing pendants should be released _____.   | before the gripes are removed                                 | before loading the passengers                                     | after loading the passengers                                    | after the boat is afloat   |  |
| 4 | 1211 | B | A crew member suffering from hypothermia should be given _____.  | a small dose of alcohol                                       | treatment for shock   | a large meal  | a brisk rub down   |  |
| 4 | 1212 | D | Ambient air, which you normally breathe, contains what percent of oxygen?  | 6%  | 10%   | 15%   | 21%  |  |
| 4 | 1213 | B | When a wind force causes a vessel to heel to a static angle, the _____.  | centers of buoyancy and gravity are in the same vertical line | righting moment equals the wind-heeling moment                    | center of buoyancy remains the same                             | deck-edge immersion occurs   |  |
| 4 | 1214 | C | An inflatable liferaft should be lifted back aboard the ship by using _____.   | the single hook at the top of the raft                        | two lines passed under the raft                                   | the towing bridle   | All of the above   |  |
| 4 | 1215 | C | According to the regulations for small passenger vessels, fuses and circuit breakers are used in electrical circuits to _____. | keep equipment from shutting off unexpectedly                 | prevent voltage fluctuations                                      | keep the circuit from becoming overloaded or overheated         | make the operator inspect his wiring periodically after the fuses blow |  |
| 4 | 1216 | D | After launching, an inflatable raft should be kept dry inside by _____.  | opening the automatic drain plugs                             | draining the water pockets  | using the electric bilge pump                                   | using the bailers and cellulose sponge                                 |  |
| 4 | 1217 | A | Which types of portable fire extinguishers are designed for use on electrical fires?   | Dry chemical and carbon dioxide                               | Foam (stored pressure) and soda-acid                              | Carbon dioxide and foam (stored pressure)                       | Dry chemical and soda-acid   |  |
| 4 | 1218 | D | To safely enter a compartment where CO2 has been released from a fixed extinguishing system, you should _____.                 | wear a canister type gas mask                                 | test the air with an Orsat apparatus                              | test the air with a pure air indicator                          | wear a self-contained breathing apparatus                              |  |



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| 4 | 1219 | D | 46 CFR Subchapter T requires that rigid plastic or other nonmetallic piping _____.                 | only be used in non-vital systems   | not be used in gasoline or diesel fuel systems                             | have approved metallic fittings and cutoff valves where it penetrates a watertight deck or bulkhead | All of the above   |  |
| 4 | 1220 | B | Lines passed around the falls to hold the boat while passengers are boarding are _____.            | life lines  | frapping lines   | tricing lines   | tripping lines   |  |
| 4 | 1221 | B | Which operation may cause the pressure in an inert tank to fall below the prescribed limits?       | Loading   | Discharging  | Crude oil washing   | Steaming tanks   |  |
| 4 | 1222 | B | After each reading of an oxygen indicator, the instrument should be purged with _____.             | CO2   | fresh air  | the tested compartment's air  | water  |  |
| 4 | 1223 | A | The survival craft carried aboard a commercial fishing vessel must safely accommodate _____.       | all of the people aboard  | the number of people required by the certificate of inspection             | the entire crew   | None of the above are correct.   |  |
| 4 | 1224 | D | In order to retrieve an inflatable liferaft and place it on deck, you should heave on the _____.   | lifelines   | righting strap   | sea anchor  | towing bridle  |  |
| 4 | 1225 | D | If the coxswain of your lifeboat gives the command "Hold water" you should _____.                  | complete the stroke, raise your oar slightly, swinging the oar slightly forward, and place it in the boat | lift the oar in a vertical position  | complete the stroke and hold the oar out of the water   | dip the blade of your oar into the water vertically and hold it perpendicular to the keel line |  |
| 4 | 1226 | D | For what purpose may gasoline be used on small passenger vessels?                                  | Heating   | Lighting   | Cooking   | None of the above  |  |
| 4 | 1227 | B | Which type of portable fire extinguishers is NOT designed for use on flammable liquid fires?       | Foam (stored-pressure)  | Water (cartridge-operated)   | Dry chemical  | Carbon dioxide   |  |
| 4 | 1228 | B | When approaching a fire from leeward, you should shield firefighters from the fire by using _____. | low-velocity fog  | high-velocity fog  | a straight stream of water  | foam spray   |  |
| 4 | 1229 | C | Which T-Boat must be fitted with a suitable compass?   | A vessel in river service   | A vessel operating on a short, restricted route on lakes, bays, and sounds | A vessel engaged in ocean or coastwise service  | The regulations do not require a compass on any vessel   |  |
| 4 | 1230 | D | The purpose of the tricing pendants is to _____.   | control the fore and aft motion of a lifeboat during lowering   | control the outboard swing of a lifeboat during lowering                   | provide suspensions for the manropes  | hold a lifeboat next to the embarkation deck while loading                                     |  |

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| 4 | 1231 | B | A "T-Boat" accident resulting in loss of life, serious injury or more than \$25,000 property damage must be reported to _____.   | the Maritime Administration (MARAD)                                | the Coast Guard  | the owner or his insurance agent   | All of the above   |  |
| 4 | 1232 | D | A marine chemist issues gas free certificates and is certified by which organization?  | Mine Safety Appliance Association                                  | American Chemical Society  | Marine Chemists Association  | National Fire Protection Association   |  |
| 4 | 1233 | D | The owner, agent, Master or person-in-charge of a small passenger vessel involved in a marine casualty is NOT required to notify the Coast Guard in cases where there is _____.                              | property damage less than \$25,000                                 | no injury which requires more than first aid treatment   | death or injury to a shipyard worker or harbor worker not resulting from the vessel casualty | All of the above   |  |
| 4 | 1234 | D | When landing a lifeboat through heavy surf with a strong current running parallel to the beach (from right to left when facing from seaward) the recommended procedure is to _____.                          | approach while coming to the left to take advantage of the current | drop an anchor outside the surf line, then pay out anchor line over the bow while the seas carry the boat toward the beach | approach slow enough so that the boat can be brought around to meet breaking seas on the bow | rig a drogue with tripping line over the bow, back ashore with drogue tripped between breakers |  |
| 4 | 1235 | D | Which procedure should NOT be done for a person who has fainted?   | Revive the person with smelling salts.                             | Loosen the clothing.   | Lay the person horizontally.   | Give pain reliever.  |  |
| 4 | 1236 | D | Inflatable liferafts are provided with _____.  | a portable radio   | an oil lantern   | canned milk  | a towing connection  |  |
| 4 | 1237 | A | Portable-foam fire extinguishers are designed for use on what classes of fires?  | A and B  | A and C  | B and C  | A, B, and C  |  |
| 4 | 1238 | C | When attempting to enter a compartment containing a fire, which method of applying water is best?  | High-velocity fog stream directed toward the overhead              | Straight stream directed into the center of the fire   | Sweeping the compartment with a fog stream   | Solid stream directed toward the overhead  |  |
| 4 | 1239 | C | With the air supply on, the air pressure in an enclosed lifeboat will be _____.  | changing in relation to the speed of the craft                     | less than outside air pressure   | greater than outside air pressure  | equal to outside air pressure  |  |
| 4 | 1240 | D | On open lifeboats, the purpose of the wire stretched between the davit heads is to _____.  | keep the movement of the davits at the same speed                  | keep the davits from slipping when they are in the stowed position   | prevent vibration during lowering of the boat  | support the manropes   |  |
| 4 | 1241 | D | Your ship of 12,000 tons displacement has a center of gravity of 21.5 feet above the keel. You run aground and estimate the weight aground is 2500 tons. The virtual rise in the center of gravity is _____. | 1.26 feet  | 3.80 feet  | 4.80 feet  | 5.66 feet  |  |

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| 4 | 1242 | A | The bosun has thrown the liferaft into the water before abandoning the vessel. The operating cord _____.                              | serves as a sea painter  | detaches from the liferaft automatically   | is used to rig the boarding ladder   | is cut immediately as it is of no further use  |  |
| 4 | 1243 | D | What is TRUE about hoisting operations?   | Personnel may work beneath suspended loads, as long as they are alert and wear hard hats.              | If a suspended load with no tag begins to spin, personnel should attempt to stop the spinning if the load is within reach. | If tag lines are used to control a suspended load, they should be secured to the deck. | Personnel not involved in the hoisting operation should be kept clear of the transfer area.        |  |
| 4 | 1245 | A | The Master of a small passenger vessel fitted with loading doors must ensure that the doors are closed, watertight and secured _____. | at all times when underway unless operating on protected or partially protected waters                 | when leaving the dock  | when loading cargo   | at all times, at the dock or underway when the loading door is not actually being used for passage |  |
| 4 | 1246 | B | Inflatable liferafts are provided with _____.   | a Very pistol  | a towing connection  | a portable radio   | canned milk  |  |
| 4 | 1247 | B | The BEST method of applying foam to a fire is to _____.   | spray directly on the base of the fire   | flow the foam down a nearby vertical surface   | sweep the fire with the foam   | spray directly on the surface of the fire  |  |
| 4 | 1248 | A | In the event of fire in a machinery space, _____.   | the fixed carbon dioxide system should be used only when all other means of extinguishment have failed | the fixed carbon dioxide system should be used immediately, as it is the most efficient means of extinguishment            | water in any form should not be used as it will spread the fire                        | the space should be opened 5 minutes after flooding CO2 to prevent injury to personnel             |  |
| 4 | 1249 | C | Which area is designated a special area by Annex V to MARPOL 73/78?   | Gulf of Saint Lawrence   | Sargasso Sea   | Red Sea  | Great Lakes  |  |
| 4 | 1250 | C | The falls on gravity davits are _____.  | manila   | nylon  | wire   | All of the above   |  |
| 4 | 1251 | D | The proper stimulant for an unconscious person is _____.  | tea  | coffee   | whiskey and water  | ammonia inhalant   |  |
| 4 | 1252 | D | When fighting a fire with a portable dry chemical fire extinguisher, the stream should be directed _____.                             | over the top of the flames   | off a bulkhead into the fire   | in front of the fire   | at the base of the fire  |  |
| 4 | 1253 | C | If there are no alternatives for escape, what is the maximum height that the survival craft could be dropped into the water?          | 2 ft.  | 6 ft.  | 10 ft.   | 14 ft.   |  |

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| 4 | 1255 | B | The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____.  | white   | green  | yellow  | red                                   |  |
| 4 | 1256 | B | The water pockets located on the underside of inflatable liferafts _____.   | stow rainwater; these 4 spaces do not take up valuable space                                | act as stabilizers by filling with sea water as soon as the raft is inflated and upright | hold the freshwater required by regulation to be provided in the raft when packed           | None of the above                     |  |
| 4 | 1257 | C | Providing you are not sailing in the Red Sea or another special area as listed in ANNEX V of MARPOL, how many miles from land must you be to throw garbage including bottles, rags, and glass that has not been ground up into the sea? | 3 nm  | 6 nm   | 12 nm   | 25 nm                                 |  |
| 4 | 1258 | C | On a bulk chemical carrier, water should NOT be used as an extinguishing agent to fight a fire if the water may come into contact with the chemical called _____.   | acrylic acid  | benzene  | oleum   | vinyl toluene                         |  |
| 4 | 1259 | C | When an autopilot is being used aboard small passenger vessels, who must make or supervise the changeover from automatic to manual steering and vice versa?   | A licensed state or federal pilot   | A certified quartermaster  | The Master or Mate on watch   | A qualified Engineer                  |  |
| 4 | 1260 | A | The type of davit on which you must turn a crank in order to swing the lifeboat out over the ship's side is a _____.  | sheath-screw davit  | gravity davit  | radial davit  | bruckner davit                        |  |
| 4 | 1261 | C | On small passenger vessels, when must watchmen patrol throughout the vessel to guard against and give alarm in case of fire or other danger?  | At all times outside normal work hours  | At all times when the vessel is underway   | During the nighttime when the vessel carries overnight passengers                           | When the rest of the crew is asleep   |  |
| 4 | 1262 | D | Which portable fire extinguisher is normally recharged in a shore facility?   | Dry chemical (cartridge-operated)   | Water (cartridge-operated)   | Water (pump tank)   | Carbon dioxide                        |  |
| 4 | 1263 | C | When chipping rust on a vessel, the MOST important piece of safety gear is _____.   | a hard hat  | gloves   | goggles   | a long sleeve shirt                   |  |
| 4 | 1264 | D | The operating cord on an inflatable liferaft should be renewed by _____.  | removing the top half of the shell, cutting the line at its source, and renewing completely | cutting the line where it enters the case and replacing that portion                     | leaving the original line and tying another one to it so the two lines will take the strain | an approved servicing facility ashore |  |

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| 4 | 1265 | D | The Master of a small passenger vessel must conduct sufficient drills and give sufficient instruction as necessary _____.                               | At each crew change  | Every week  | Every month   | To ensure that all crew members are familiar with their duties during emergencies |
| 4 | 1266 | D | A life line must be connected to the liferaft _____.  | at the bow   | at the stern  | in the middle   | all around  |
| 4 | 1269 | A | Life floats and buoyant apparatus used aboard small passenger vessels shall be marked in clearly legible letters and numbers _____.                     | with the parent vessels name in 3" high letters and the number of persons allowed with 1 1/2" high numbers | by a Coast Guard inspector after inspecting the equipment | by the American Bureau of Shipping (ABS), another recognized, authorized classification society or the vessels underwriters | by all of the above   |
| 4 | 1270 | C | The most common type of davit found on merchant vessels today is the _____.   | radial   | sheath-screw  | gravity   | quadrantal  |
| 4 | 1271 | A | The primary danger in helicopter fires is _____.  | burning jet fuel running on to quarters or other areas   | loss of stability   | rotating and flying debris  | heat damage to helicopter structure   |
| 4 | 1272 | A | When approaching a fire from windward, you should shield firefighters from the fire by using _____.   | low-velocity fog   | high-velocity fog   | a straight stream of water  | foam spray  |
| 4 | 1273 | D | In launching a covered lifeboat, what would safely lower the lifeboat from inside the lifeboat cabin?   | Frapping line  | Tricing line  | Rottmer release   | Winch remote control wire   |
| 4 | 1274 | B | On inflatable liferafts, the operating cord should be renewed by _____.   | cutting the old line off and renewing same   | an approved servicing facility ashore                     | opening the case and replacing the entire line  | one of the ship's officers  |
| 4 | 1275 | C | A documented vessel's name is marked on a clearly visible exterior area of both sides of the bow and on the stern in block letters not less than _____. | 6 inches in height   | 5 inches in height  | 4 inches in height  | 3 inches in height  |
| 4 | 1276 | D | The lights on the outside of the canopy on an inflatable liferaft operate _____.  | by turning the globe clockwise   | by a switch at each light                                 | by a light sensor   | automatically when the raft is inflated   |
| 4 | 1277 | B | When possible, what is the FIRST step in fighting an engine fuel-pump fire which results from a broken fuel line?                                       | Secure all engine room doors, hatches, and vents.  | Close the fuel line valve.                                | Check the spread of the fire with foam.   | Cast the barge off the wharf.   |

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| 4 | 1278 | D | An extinguishing agent which effectively cools, dilutes combustible vapors, removes oxygen, and provides a heat and smoke screen is _____.   | carbon dioxide   | Halon 1301   | dry chemical  | water fog   |  |
| 4 | 1279 | B | On a documented small passenger vessel, what information must be permanently affixed in block-type letters and/or numerals to the main beam or other clearly visible interior structural part of the hull? | The vessel's name and gross tonnage                                  | The vessel's official number   | Draft markings  | The vessel's name and home port   |  |
| 4 | 1280 | A | On which type davit does the davit head stay at the same height?   | Radial   | Sheath-screw   | Quadrantal  | Gravity   |  |
| 4 | 1281 | C | You are in the process of righting an inflatable liferaft that has inflated in an upside down position. Which statement is TRUE?   | As the raft flips to the upright position, you will be thrown clear. | After the raft is in the upright position on top of you, dive down to prevent your life preservers from fouling as you come out. | Swim out from under the raft in a face up position to keep your life preservers clear of the raft.                                      | You should remove your life preservers before attempting to right an inflatable raft. |  |
| 4 | 1282 | C | When approaching a fire from leeward you should shield fire fighters from the fire by using _____.   | a straight stream of water   | foam spray   | high-velocity fog   | low-velocity fog  |  |
| 4 | 1283 | B | The liquid-filled PV breaker has acted to relieve a vacuum in a tank. What action must be taken in regards to the PV-breaker before continuing operations?   | Check to make certain that it has reset itself.                      | Refill the breaker with liquid.  | Manually reset the vacuum side of the breaker.  | Install a new rupture disc.   |  |
| 4 | 1284 | B | The operating cord on an inflatable liferaft also serves as a _____.   | lifeline   | painter  | drogue  | marker  |  |
| 4 | 1285 | C | You have abandoned ship and find yourself aboard a lifeboat in a heavy sea. Your boat is able to make way through the water. To prevent broaching, you should _____.                                       | put the sea on your stern and run as fast as the boat will go        | take no action to prevent broaching as this is a recommended maneuver in a heavy sea   | head the boat into the swells to take them at a 30 to 40 degree angle on either bow and run as slow as possible without losing steerage | place everyone as far forward in the boat as possible to keep the bow heavy           |  |
| 4 | 1286 | A | The inside light in an inflatable liferaft is turned on _____.   | automatically as the liferaft inflates                               | with a switch near the boarding handle   | at night because the light has a photosensitive switch  | by screwing the bulb in after the raft is inflated                                    |  |

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| 4 | 1287 | D | When possible, what should be the FIRST step in combating a fire on deck resulting from a cargo overflow or a leaking cargo line?   | Blanket the cargo spill with foam.  | Prevent the spread of fire with a foam dam. | Apply CO2 on burning fuel at its source.  | Shut off the transfer of cargo.   |         |
| 4 | 1288 | B | Which extinguishing agent is the best for use on electrical fires?  | Foam  | CO2   | Dry chemical  | Water fog   |         |
| 4 | 1289 | A | An undocumented vessel with 10 people aboard and operating 25 miles off the seacoast must carry a survival craft of the _____.  | inflatable buoyant apparatus type   | buoyant apparatus type                      | life float type   | All of the above types are acceptable.                                  |         |
| 4 | 1290 | B | Which davit type may be operated by one man?  | Quadrantal  | Gravity                                     | Sheath-screw  | Radial  |         |
| 4 | 1291 | A | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.82 feet   | 1.96 feet                                   | 2.05 feet   | 2.17 feet   | ST-0033 |
| 4 | 1292 | B | What is the MOST important consideration when determining how to fight an electrical fire?  | Whether the fire is in machinery or passenger spaces                            | Danger of shock to personnel                | The amount of toxic fumes created by the extinguisher   | Maintaining electrical power  |         |
| 4 | 1293 | A | The SS AMERICAN MARINER has the following drafts: FWD 09'-00", AFT 15'-11". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.   | 2.62 feet   | 2.82 feet                                   | 2.97 feet   | 3.15 feet   | ST-0034 |
| 4 | 1294 | A | According to the "T-Boat" regulations, the permanent marks placed on each side of a vessel forward, aft, and amidships to indicate the maximum allowable draft and trim are called _____.   | loading marks   | the air draft                               | depth marks   | Plimsoll marks  |         |
| 4 | 1295 | C | If you must land on a beach with an oar-propelled lifeboat through a heavy surf, the recommended method is to _____.  | keep the bow directly in toward the beach, and tow the sea anchor off the stern | ride in on the back of a large breaker      | keep the bow into the seas with the sea anchor out over the bow, and row to meet the breaking waves | head directly into the beach by staying between the crests of the waves |         |
| 4 | 1296 | A | Hand holds or straps on the underside of an inflatable liferaft are provided _____.   | to right the raft if it capsizes  | to carry the raft around on deck            | for crewmen to hang on to   | to hang the raft for drying   |         |

|   |      |   |  |  |   |   |  |  |
|---|------|---|--|--|---|---|--|--|
| 4 | 1297 | D | A small passenger vessel of not more than 65 feet in length must have a collision bulkhead if it _____.  | operates on exposed waters                           | carries more than 49 passengers                               | is more than 40 feet in length and operates on partially exposed waters   | All of the above                                 |  |
| 4 | 1298 | A | If a powdered aluminum fire is being fought, the correct extinguishing agent would be _____.   | dry powder   | water fog   | CO2   | steam  |  |
| 4 | 1299 | A | In reviving a person who has been overcome by gas fumes, what would you AVOID doing?   | Giving stimulants                                    | Prompt removal of the patient from the suffocating atmosphere | Applying artificial respiration and massage                               | Keeping the patient warm and comfortable         |  |
| 4 | 1300 | C | Blocks and falls used as lifeboat gear must be designed with a minimum safety factor of _____.   | 4, based on the breaking strength                    | 5, based on the maximum allowable stress                      | 6, based on the maximum working load                                      | 8, based on the normal working load              |  |
| 4 | 1301 | D | A vessel to which Annex V to MARPOL 73/78 applies is 24 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged? | Glass  | Crockery  | Metal   | Dunnage  |  |
| 4 | 1302 | A | A class B fire is most successfully fought by _____.   | preventing oxygen from reaching the burning material | cooling the burning material below its ignition temperature   | using the extinguishing agent to make the burning material fire-resistant | using the extinguishing agent to absorb the heat |  |
| 4 | 1303 | A | According to 46 CFR Subchapter T, where practicable carburetor drip collectors should drain to _____.  | the engine air intakes                               | the fuel tanks  | a separate pipe leading to the bilges                                     | a suitable absorbant material                    |  |
| 4 | 1304 | C | The painter of an inflatable liferaft should be _____.   | free running on the deck                             | faked out next to the case                                    | secured to a permanent object on deck                                     | stowed near the raft                             |  |
| 4 | 1305 | B | When backing a motor propelled lifeboat (right-hand propeller) with the rudder amidships, the stern will back _____.                                     | straight   | to port   | to starboard  | None of the above                                |  |
| 4 | 1306 | B | Water pockets on the underside of an inflatable liferaft are for _____.  | catching rain water                                  | stability   | easy drainage   | maneuverability                                  |  |
| 4 | 1307 | D | Firefighting foam is only effective when the foam _____.   | penetrates to the bottom of the fire                 | is kept saturated with low-velocity water fog                 | mixes with the burning fuel oil   | completely covers the top of the burning liquid  |  |
| 4 | 1308 | B | What would be the most effective agent to use to extinguish a fire in drums of flammable liquids stowed on the weather deck of a vessel?                 | Carbon dioxide                                       | Foam  | Steam   | Water fog  |  |



|   |      |   |   |   |   |   |  |         |
|---|------|---|---|---|---|---|--|---------|
| 4 | 1309 | D | On small passenger vessels which type of internal combustion engine carburetor does not require a drip collector?   | Updraft   | Two barrel  | Four barrel   | Downdraft  |         |
| 4 | 1310 | A | Frapping lines are fitted to lifeboat davits to _____.  | reduce the swinging of the lifeboat as it is being lowered from the embarkation level | secure the lifeboat in the davits when in the stowed position         | hold the lifeboat to the ship's side until the tricing lines are passed | be used as a safety line in an emergency                                       |         |
| 4 | 1312 | B | The best method of extinguishing a class A fire is to _____.  | remove oxygen from the area   | cool fuel below ignition temperature                                  | smother with CO2  | smother fire with foam   |         |
| 4 | 1313 | D | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3224 tons of cargo on board with a KG of 29.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 27.2 feet  | KG 27.8 feet  | KG 28.4 feet  | KG 29.0 feet   | ST-0035 |
| 4 | 1314 | D | Under normal conditions a liferaft is released from its cradle by _____.  | cutting the restraining strap   | unscrewing the turnbuckle on the back of the cradle                   | lifting one end of the raft   | pushing the plunger on the center of the hydrostatic release                   |         |
| 4 | 1317 | B | The most effective way of applying carbon dioxide from a portable extinguisher to a fire is by _____.   | forming a cloud cover over the flames   | directing the gas at the base of the flames in a slow sweeping motion | discharging the carbon dioxide into the heart of the flames             | bouncing the discharge off an adjacent bulkhead just above the burning surface |         |
| 4 | 1318 | A | The most effective fire extinguishing agent to use on burning linen is _____.   | water   | carbon dioxide  | dry chemical  | foam   |         |
| 4 | 1319 | D | Where should muster lists be posted?  | In crew's accommodation spaces  | On the navigating bridge  | In the engine room  | All of the above   |         |
| 4 | 1320 | B | Fire extinguishers on inspected vessels are numbered by size I through V, with I being _____.   | used for electrical fires only  | the smallest  | the most accessible   | the most effective   |         |
| 4 | 1321 | A | How should the lifeboat sea painter be rigged?  | Secured to the inboard side of a forward thwart and led inboard of the falls          | Spliced into the ring on the stem post                                | Secured by a toggle to the stem post and led outboard of the falls      | Secured by a toggle around the outboard side of a forward thwart               |         |

|   |      |   |   |   |  |  |   |  |
|---|------|---|---|---|--|--|---|--|
| 4 | 1322 | B | How should the lifeboat sea painter be rigged?  | Spliced into the ring on the stem post  | Secured to the inboard side of a forward thwart and led inboard of the falls | Secured by a toggle to the stem post and led outboard of the falls           | Secured by a toggle around the outboard side of a forward thwart                    |  |
| 4 | 1323 | A | How should latitude 51°48.7'S be written when preparing an AMVER report?  | 5149S   | 51.8S  | 0578S  | 52S   |  |
| 4 | 1324 | D | A hydrostatic release mechanism for a liferaft _____.   | must be wet before it will release  | should be kept in a watertight cover except in an emergency                  | will inflate the raft in its cradle if operated manually                     | must be submerged to a certain depth to release automatically                       |  |
| 4 | 1326 | D | All inflatable liferafts have _____.  | safety straps from the overhead   | built in seats   | releasing hooks at each end  | water stabilizing pockets   |  |
| 4 | 1327 | A | If you are forced to abandon ship in a liferaft, your course of action should be to _____.                          | remain in the immediate vicinity  | head for the nearest land  | head for the closest sea-lanes   | let the persons in the boat vote on what to do                                      |  |
| 4 | 1328 | D | Any extinguishing agent used on a Class "C" fire must have which important property?                                | Cooling ability   | Leaves no residue  | Penetrating power  | Nonconductivity   |  |
| 4 | 1329 | A | The sprinkler system of an enclosed lifeboat is used to _____.  | cool the craft in a fire  | cool the engine  | spray oil on the sea to calm it  | spray personnel during a fire   |  |
| 4 | 1330 | C | How should the lifeboat sea painter be rigged?  | Spliced into the ring on the stem post  | Secured by a toggle around the outboard side of a forward thwart             | Secured to the inboard side of a forward thwart and led inboard of the falls | Secured by a toggle to the stem post and led outboard of the falls                  |  |
| 4 | 1331 | A | A Certificate of Financial Responsibility attests that the vessel _____.  | has financial backing to meet any liability resulting from the discharge of oil | has the minimum required amount of P & I and hull insurance                  | will assume the responsibility for any damage or loss to the shipper         | has financial reserves to meet reasonable expected crew costs of an intended voyage |  |
| 4 | 1332 | C | An important step in fighting any electrical fire is to _____.  | stop ventilation  | stop the vessel  | de-energize the circuit  | apply water to extinguish the fire  |  |
| 4 | 1333 | D | If you reef a marconi mainsail, the sail area _____.  | moves forward and up  | moves aft and down   | becomes larger   | becomes smaller   |  |
| 4 | 1334 | D | An inflatable liferaft should be manually released from its cradle by _____.  | cutting the straps that enclose the container                                   | removing the rubber sealing strip from the container                         | loosening the turnbuckle on the securing strap                               | pushing the button on the hydrostatic release                                       |  |
| 4 | 1335 | D | What prevents an inflated liferaft from being pulled under by a vessel which sinks in water over 100 feet in depth? | The hydrostatic release   | Nothing  | A Rottmer release  | The weak link in the painter line   |  |

|   |      |   |  |   |                                       |  |   |  |
|---|------|---|--|---|---------------------------------------|--|---|--|
| 4 | 1336 | C | A feature of an inflatable raft which helps keep people stationary in rough weather is _____.  | lashings on the floor of the raft for the passenger's feet          | straps from the overhead              | lifelines on the inside of the raft  | ridges in the floor of the raft                         |  |
| 4 | 1337 | D | It is desirable to have screens on the vents of potable water tanks to _____.  | filter the incoming air   | prevent explosions                    | prevent backups  | stop insects from entering                              |  |
| 4 | 1338 | D | Regular foam can be used on all but which flammable liquid?  | Motor gasoline  | Jet fuel                              | Crude petroleum  | Alcohol   |  |
| 4 | 1339 | B | The static stability curve for a given vessel peaks at 34°. For this ship, the danger angle for a permanent list would be about _____.   | 8.5°  | 17°                                   | 34°  | 51°   |  |
| 4 | 1340 | D | When compared to a high-expansion foam, a low-expansion foam will _____.   | be dryer  | be lighter                            | be less heat resistant   | not cling to vertical surfaces                          |  |
| 4 | 1341 | A | Persons who have swallowed a non-petroleum based poison are given large quantities of warm soapy water or warm salt water to _____.  | induce vomiting   | absorb the poison from the blood      | neutralize the poison in the blood   | increase the digestive process and eliminate the poison |  |
| 4 | 1342 | B | If there's a fire aboard your vessel, you should FIRST _____.  | notify the Coast Guard  | sound the alarm                       | have passengers put on life preservers   | cut off air supply to the fire                          |  |
| 4 | 1343 | B | The SS NORTHLAND is loaded to drafts: FWD 26'-09", AFT 28'-03". The KG is 25.4 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline). | 3.0°  | 4.5°                                  | 5.0°   | 6.5°  |  |
| 4 | 1344 | A | What is the purpose of the hydrostatic release on an inflatable liferaft?  | To release the raft from the cradle automatically as the ship sinks | To inflate the raft automatically     | To test the rafts hydrostatically  | None of the above                                       |  |
| 4 | 1345 | C | An inflatable liferaft can be launched by _____.   | the float-free method ONLY  | breaking the weak link on the painter | throwing the entire container overboard and then pulling on the operating cord to inflate the raft | removing the securing straps                            |  |
| 4 | 1346 | A | The canopy of an inflatable liferaft should _____.   | go into place as the raft is inflated                               | be put up after everyone is aboard    | be put up only in severe weather   | be used as a sail if the wind is blowing                |  |
| 4 | 1347 | A | A quick and rapid motion of a vessel in a seaway is an indication of a(n) _____.   | large GM  | high center of gravity                | excessive free surface   | small GZ  |  |
| 4 | 1348 | D | Dry chemical fire extinguishers are effective on which type(s) of fire?  | Burning oil   | Electrical                            | Paint  | All of the above  |  |

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|---|------|---|--|---|---|---|---|---------|
| 4 | 1349 | B | What type of liquid is used in the liquid P/V breaker?   | Hydraulic oil                                       | Water-antifreeze mixture                                  | Distilled water                         | Oil from the cargo                            |         |
| 4 | 1350 | C | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?   | 2.45 feet   | 1.95 feet   | 1.05 feet                               | 0.90 foot                                     | ST-0036 |
| 4 | 1351 | A | While operating off the coast of Greece, a seaman is injured. What indicator should be in the preamble of a radio telegram asking for medical advice from a Greek station?   | RADIO MEDICAL                                       | DH MEDICO   | MEDICO ELLAS                            | MAYDAY  |         |
| 4 | 1352 | B | If you have a fire in the engine room, your FIRST act should be to _____.  | discharge the fixed CO2 system into the engine room | secure the fuel supply and ventilation to the engine room | maneuver your vessel into the wind      | have all of your crew get into the liferaft   |         |
| 4 | 1353 | A | In heavy seas the helmsman should steer the motor lifeboat _____.  | into the seas                                       | broadside to the seas                                     | in the same direction as the seas       | in a series of figure-eights                  |         |
| 4 | 1354 | C | If the hydrostatic release mechanism for an inflatable liferaft is not periodically serviced and becomes inoperative, it will NOT _____.   | set the water lights on immersion                   | release the dye-marker from the liferaft                  | free the liferaft from a sinking vessel | break the seal on the carbon dioxide cylinder |         |
| 4 | 1355 | B | As a vessel sinks to a depth of 15 feet, the hydrostatic trip releases the liferaft container from its cradle by _____.  | breaking the weak link                              | releasing the tie-down strap                              | pulling the operating cord              | releasing the CO2 canister                    |         |
| 4 | 1356 | A | What is placed on the under side of an inflatable liferaft to help prevent it from being skidded by the wind or overturned?  | Water pockets                                       | A keel  | Strikes                                 | Sea anchor                                    |         |
| 4 | 1357 | A | The SS AMERICAN MARINER is partially loaded with a GM of 2.9 feet and drafts of: FWD 17'-10", AFT 19'-04". Use the white pages of the Stability Data Reference Book to determine what tanks you should ballast to increase the GM to 3.9 feet. | Tanks: DB4, DT6                                     | Tanks: DB3, DB5, DT8                                      | Tanks: DB6, DT7                         | Tanks: DB2, DT1, DT6                          |         |
| 4 | 1358 | B | Which extinguishing agent is best for use on a magnesium fire?   | Water   | Sand  | CO2                                     | Dry chemical                                  |         |
| 4 | 1360 | B | When lowering a boat with gravity davits, it will be pulled into the embarkation deck by the _____.  | falls   | tricing pendants  | frapping lines                          | boat hooks                                    |         |
| 4 | 1361 | B | What is the minimum diameter allowed for bilge piping on small passenger vessels which are more than 65 feet in length?  | 1"  | 1-1/2"  | 2"                                      | 2-1/2"  |         |
| 4 | 1362 | C | On small passenger vessels, backfire flame arrestors are installed on _____.   | all electric motors                                 | turbocharged diesel engines                               | gasoline engines                        | both A and C                                  |         |

|   |      |   |  |  |   |   |  |  |
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| 4 | 1363 | D | Before entering the chain locker, you should _____.  | have someone standing by   | make sure there is sufficient air within the locker                               | de-energize the windlass  | All of the above   |  |
| 4 | 1364 | B | Signaling devices required on inflatable liferafts include a(n) _____.   | Very pistol  | orange smoke signal   | air horn  | lantern  |  |
| 4 | 1365 | C | The most important thing to remember when launching an inflatable liferaft by hand is to _____.  | open the CO2 inflation valve   | open the raft container   | ensure that the operating cord is secured to the vessel                         | inflate the raft on the vessel, then lower it over the side  |  |
| 4 | 1366 | D | The air spaces in the floor of an inflatable liferaft will provide protection against _____.   | asphyxiation from CO2  | loss of air in the sides of the raft  | rough seas  | cold water temperatures                                      |  |
| 4 | 1367 | C | Determine the free surface constant for a fuel oil tank 30 ft. long by 40 ft. wide by 15 ft. deep. The specific gravity of the fuel oil is .85 and the ship is floating in saltwater (S.G. 1.026).   | .83  | 42.7  | 3787  | 4571   |  |
| 4 | 1368 | D | A fire in electrical equipment should be extinguished by using _____.  | salt water   | foam  | low-velocity fog  | CO2  |  |
| 4 | 1369 | D | A cargo of 50 tons is to be loaded on deck 20 feet from the ship's centerline. The vessel's displacement including the 50 ton cargo will be 3,000 tons and the GM three feet. The list of the vessel after loading this cargo will be _____. | 5.35°  | 5.80°   | 6.10°   | 6.35°  |  |
| 4 | 1372 | C | It is necessary to secure the forced ventilation to a compartment where there is a fire to _____.  | allow the exhaust fans to remove smoke   | extinguish the fire by carbon monoxide smothering                                 | prevent additional oxygen from reaching the fire                                | protect fire fighting personnel from smoke                   |  |
| 4 | 1373 | C | You are reading draft marks on a vessel. The water level is halfway between the bottom of the number 5 and the top of the number 5. What is the draft of the vessel?   | 4'-09"   | 5'-09"  | 5'-03"  | 5'-06"   |  |
| 4 | 1374 | A | Puncture leaks in the lower tubes or bottom of an inflatable liferaft should FIRST be stopped by using _____.  | sealing clamps   | repair tape   | a tube patch  | sail twine and vulcanizing kit                               |  |
| 4 | 1375 | D | To launch a liferaft by hand you should _____.   | cut the casing bands, throw the liferaft over the side, and it will then inflate | detach the operating cord, throw the raft over the side, and it will then inflate | cut the casing bands, throw the raft over the side, and pull the operating cord | throw the liferaft over the side and pull the operating cord |  |

|   |      |   |   |   |   |  |   |  |
|---|------|---|---|---|---|--|---|--|
| 4 | 1376 | C | Which distress signal is required for a liferaft in ocean service and could be effectively used to attract the attention of aircraft at night?  | The water light   | Smoke marker  | Red flares   | Orange dye marker   |  |
| 4 | 1377 | C | On a vessel of 34,000 tons displacement, a tank 80 ft. long, 60 ft. wide and 30 ft. deep is half filled with fresh water (SG 1.000) while the vessel is floating in saltwater (SG 1.026). What is the free surface constant for this tank?      | 2661  | 2819  | 40100  | 42213   |  |
| 4 | 1378 | A | The most effective cooling agent among those normally used to fight fires is _____.   | water fog or spray  | chemical foam   | mechanical foam  | carbon dioxide  |  |
| 4 | 1379 | B | Which statement about inert gas pressures in a cargo tank is TRUE?  | The pressures of the inert gas in the tank may create excessive pressure at the pump while discharging. | Gas pressures should be maintained at the highest permissible level throughout the discharging process.     | High gas pressures may cause pyrophoric oxidation in the tank. | High gas pressures may cause loss of suction when stripping.  |  |
| 4 | 1380 | B | A cargo of 100 tons is to be loaded on deck 20 feet from the ship's centerline. The ship's displacement including the 100 tons of cargo will be 10,000 tons and the GM two feet. The list of the vessel after loading this cargo will be _____. | 5.4°  | 5.7°  | 5.9°   | 6.1°  |  |
| 4 | 1381 | C | Large volumes of carbon dioxide are safe and effective for fighting fires in enclosed spaces, such as in a pumproom, provided that the _____.   | persons in the space wear gas masks   | persons in the space wear damp cloths over their mouths and nostrils  | ventilation system is secured and all persons leave the space  | ventilation system is kept operating  |  |
| 4 | 1382 | A | Ventilation systems connected to a compartment in which a fire is burning are normally closed to prevent the rapid spread of the fire by _____.   | convection  | conduction  | radiation  | spontaneous combustion  |  |
| 4 | 1383 | D | Which statement about entry into a water ballast tank that has been sealed for a long time is TRUE?   | A "buddy system" should be used where someone enters the tank with you.                                 | Sea water acts on the ship's metal and generates chlorine gas which may accumulate in poisonous quantities. | You should always wear a gas mask.                             | After ventilation and testing, and the tank is found safe for entry, someone should stand by at the tank entrance while you are inside. |  |

|   |      |   |   |   |  |   |  |        |
|---|------|---|---|---|--|---|--|--------|
| 4 | 1384 | C | According to 46 CFR Subchapter T, rigid plastic or other nonmetallic piping _____.  | may only be used for gasoline fuel piping                                   | may only be used for diesel fuel piping  | may not be used for diesel or gasoline fuel piping  | may be used for gasoline or diesel fuel piping                           |        |
| 4 | 1385 | D | An inflatable liferaft is hand-launched by _____.   | pulling a cord  | cutting the wire restraining bands   | removing the rubber packing strip   | throwing the entire container overboard                                  |        |
| 4 | 1386 | C | If the metacentric height is large, a vessel will _____.  | be tender   | have a slow and easy motion  | be stiff  | have a tendency to yaw   |        |
| 4 | 1387 | B | In painting a lifeboat following its overhaul, which parts must be painted bright red?  | the top 2-1/2 inches of each side   | the releasing gear lever   | the fuel tanks  | the thwarts  |        |
| 4 | 1388 | C | Which extinguishing agent will absorb the most heat?  | CO2   | Foam   | Water   | Dry chemical   |        |
| 4 | 1389 | A | Which statement about the inert gas system is TRUE?   | Boiler soot blowers should never be used when the IG system is operating.   | The boiler will produce the best quality of flue gas for the IG system when the boiler load is very light. | The boiler will produce the most quantity of flue gas for the IG system when the boiler load is very light. | Flue gas with excessive oxygen content is de-oxygenated in the scrubber. |        |
| 4 | 1390 | D | Which sequence is correct when launching a lifeboat stowed in gravity davits?   | Release gripes, turn on emergency disconnect switch, release frapping lines | Release tricing pennants, turn on emergency disconnect switch, release frapping lines                      | Operate limit switches, release gripes, lift brake  | Release gripes, lift brake, release tricing pennants                     |        |
| 4 | 1391 | D | Halon extinguishes fire primarily by _____.   | cooling   | smothering   | shielding of radiant heat   | breaking the chain reaction  |        |
| 4 | 1392 | C | Except in rare cases, it is impossible to extinguish a shipboard fire by _____.   | removing the heat   | removing the oxygen  | removing the fuel   | interrupting the chain reaction  |        |
| 4 | 1393 | A | You are reading the draft marks. The water level is about 4 inches below the bottom of the number 11. What is the draft?        | 10'-08"   | 10'-10"  | 11'-04"   | 11'-08"  | D032DG |
| 4 | 1394 | C | In each inflatable liferaft, what equipment is provided to make quick, emergency, temporary repairs to large holes in the raft? | No equipment is provided.   | Glue and rubber patches  | Several various-sized sealing clamps  | Self-adhesive rubberized canvas patches                                  |        |
| 4 | 1395 | A | After you have thrown the liferaft and stowage container into the water, you inflate the liferaft by _____.                     | pulling on the painter line   | forcing open the container which operates the CO2  | hitting the hydrostatic release   | using the hand pump provided   |        |
| 4 | 1396 | B | If you find an inflatable liferaft container with steel bands around the case, you should _____.                                | tell the Master   | leave the bands in place   | tell the Mate   | remove the bands yourself  |        |
| 4 | 1397 | C | To reduce mild fever the MOST useful drug is _____.   | bicarbonate of soda   | paregoric  | aspirin   | aromatic spirits of ammonia  |        |

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|---|------|---|---|--|--|---|---|---------|
| 4 | 1398 | B | The size of fire hydrant hose connections on a cargo vessel must be either 1-1/2 inches or _____.   | 1 inch   | 2-1/2 inches   | 3 inches  | 3-1/2 inches  |         |
| 4 | 1399 | B | How should longitude 116°24.3'W be written when preparing an AMVER report?  | 116°24.3W  | 11624W   | 116.4W  | 116W  |         |
| 4 | 1400 | A | In rough weather, when a ship is able to maneuver, it is best to launch a lifeboat _____.   | on the lee side  | on the windward side   | with the wind dead ahead  | with the wind from astern   |         |
| 4 | 1402 | A | When using carbon dioxide to fight a fire on a bulkhead, the CO2 should be applied _____.   | first to the bottom of the flaming area, sweeping from side to side, and following the flames upward | in a circular motion from the middle of the bulkhead outward | to the top of the flaming area, sweeping from side to side, and working toward the bottom | in an up-and-down motion from one side of the bulkhead to the other |         |
| 4 | 1403 | C | Which action must be taken when an individual cargo tank is closed off from the inert gas system by the tank isolation valve?   | The tank must be gas freed.  | The tank must be ballasted.                                  | The tank must be vented to the atmosphere.  | The bypass valve must also be closed.                               |         |
| 4 | 1404 | C | Signaling devices which are required on inflatable liferafts include _____.   | a rocket shoulder rifle  | an oil lantern   | red flares  | an air horn   |         |
| 4 | 1405 | A | When launching an inflatable liferaft, you should make sure that the operating cord is _____.   | fastened to some substantial part of the vessel  | not fastened to anything                                     | secured to the hydrostatic release  | fastened to the raft container                                      |         |
| 4 | 1406 | D | The principal danger from ice collecting on a vessel is the _____.  | decrease in capabilities of radar  | decrease in displacement                                     | adverse effect on trim  | loss of stability   |         |
| 4 | 1407 | D | You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris which is indicated by what letter?  | C  | D  | E   | F   | D007SA  |
| 4 | 1408 | A | What is NOT a characteristic of carbon dioxide fire-extinguishing agents?   | Effective even if ventilation is not shut down   | Will not deteriorate in storage                              | Non-corrosive   | Effective on electrical equipment                                   |         |
| 4 | 1409 | D | The SS AMERICAN MARINER has the following drafts: FWD 08'-04", AFT 16'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.91 feet  | 2.09 feet  | 2.21 feet   | 2.48 feet   | ST-0037 |



|   |      |   |  |  |   |   |  |  |
|---|------|---|--|--|---|---|--|--|
| 4 | 1411 | A | Which statement about entry into a space that has been sealed for a long time is TRUE?   | A tank that has been used to carry hazardous liquids should be tested for oxygen content, toxicity, and explosive gases. | You can safely enter the space without a breathing apparatus if the oxygen content exceeds 14%. | The natural ventilation through the installed vents is sufficient to provide the proper oxygen content. | The heat of the sun on upper ballast tanks, such as in a bulk carrier, may generate carbon monoxide. |  |
| 4 | 1412 | D | By regulation, cargo tank atmosphere must be inert before and during which operation?  | Stripping  | Loading   | Cleaning  | All of the above   |  |
| 4 | 1413 | B | Your vessel is damaged, and there is no list or trim. The rolling period is short. The freeboard before the damage was 12'02" (3.7 meters). It is now reduced to 3'00"(1 meter). Which action would you take FIRST?              | Press up a slack centerline double bottom tank   | Pump out an amidships centerline ballast tank   | Transfer ballast from the peak tanks to an amidships centerline tank                                    | Pump out the marine potable tank located on the starboard side amidships                             |  |
| 4 | 1414 | B | What should be used to steer an open lifeboat if the rudder becomes lost or damaged?   | Sea anchor   | Steering oar  | Spare rudder  | Daggerboard  |  |
| 4 | 1415 | A | You are reading the draft marks in illustration D032DG. The water level forward is at the top of the 8, and the mean water level aft is at the top of the 8. What is the mean draft?   | 8'06"  | 8'03"   | 8'00"   | 7'06"  |  |
| 4 | 1416 | B | You will extinguish a fire when you remove _____.  | nitrogen   | oxygen  | sodium  | carbon dioxide   |  |
| 4 | 1417 | C | A vessel is "listed" when it is _____.   | down by the head   | down by the stern   | inclined due to off-center weight   | inclined due to wind   |  |
| 4 | 1418 | C | Which is the MOST important consideration for a tank vessel?   | GM   | The longitudinal center of gravity  | The stress on the hull  | The vertical center of gravity   |  |
| 4 | 1419 | B | Your vessel is listing 4° to port and has a short rolling period. There is loose firefighting water in the hull. The ship is trimmed down by the head with one foot of freeboard at the bow. Which action should you take FIRST? | Press up the slack NO.1 starboard double bottom tank.  | Pump out the forepeak tank.   | Eliminate the water in the 'tween decks aft.  | Jettison stores out of the paint locker in the fo'c'sle.   |  |
| 4 | 1420 | B | Which statement about the pressure in a tank being inerted by an inert gas system is TRUE?   | The maximum pressure permitted is 8 psi.   | A positive pressure should be maintained at all times.  | The pressure must remain within the limits of +5 psi to -1 psi.   | None of the above  |  |
| 4 | 1421 | D | The control lever for the mechanical disengaging apparatus in a lifeboat shall _____.  | be painted bright red  | be secured to a permanent part of the lifeboat structure  | have the area surrounding the lever painted white   | All of the above   |  |

|   |      |   |   |  |   |  |  |         |
|---|------|---|---|--|---|--|--|---------|
| 4 | 1422 | B | Mechanical gearing of deck machinery such as the windlass or boat hoists should _____.  | be open to view so, if a foreign object gets in the gearing, the operator can immediately stop the machinery | have a guard over the gearing                                     | be painted a contrasting color from the base color in order to call attention to the gearing | not be operated if there is any crew within 10 feet of the machinery |         |
| 4 | 1423 | C | A weight of 250 tons is loaded on your vessel 95 feet forward of the tipping center. The vessel's MT1 is 1000 ft-tons. What is the total change of trim?  | 11.90 inches   | 18.75 inches  | 23.75 inches   | 38.01 inches   |         |
| 4 | 1424 | A | Halon gas will decompose and may form very hazardous toxic fumes when discharged _____.   | directly on flames   | at room temperature   | in an extremely cold climate   | None of the above  |         |
| 4 | 1425 | C | Which advantage does dry chemical have over carbon dioxide (CO <sub>2</sub> ) in firefighting?  | Compatible with all foam agents  | Cleaner   | More protective against re-flash   | All of the above   |         |
| 4 | 1426 | C | A vessel aground may have negative GM since the _____.  | decrease in KM is equal to the loss of draft   | virtual rise of G is directly proportional to the remaining draft | displacement lost acts at the point where the ship is aground                                | lost buoyancy method is used to calculate KM, and KB is reduced      |         |
| 4 | 1427 | B | You are in a lifeboat when you sight the stars as shown. You will be heading due north when you head for Polaris which is indicated by which letter?  | E  | F   | G  | H  | D007SA  |
| 4 | 1428 | D | A Halon 1301 cylinder contains 100 pounds of liquid at 360 psi. It must be recharged when the pressure drops below how many psi?  | 360  | 352   | 336  | 324  |         |
| 4 | 1429 | A | When collecting condensation for drinking water, _____.   | a sponge used to mop up and store condensation must be kept salt free  | only condensation on the bottom of the canopy should be collected | it should be strained through a finely woven cloth   | chlorine tablets should be used to make it drinkable                 |         |
| 4 | 1430 | A | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 6422 tons of cargo on board with a KG of 26.6 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 24.9 feet   | KG 25.5 feet  | KG 26.1 feet   | KG 28.9 feet   | ST-0038 |
| 4 | 1431 | B | Which statement is FALSE regarding Halon 1301?  | It is colorless.   | It is sweet smelling.   | It may cause dizziness when inhaled.   | It does not conduct electricity.                                     |         |

|   |      |   |   |   |   |  |  |        |
|---|------|---|---|---|---|--|--|--------|
| 4 | 1432 | B | You are reading the draft marks. The top 2 inches of the 9 forward is visible above the water level, and the water level is four inches below the 10 aft. What is the mean draft?   | 9'-10"  | 9'-06"                                    | 9'-04"                                   | 9'-02"                                     | D032DG |
| 4 | 1433 | B | You should NOT use a power tool if _____.   | it has a three-prong plug                       | the insulation of the power wires is worn | hand tools can be used instead           | the power source is alternating current    |        |
| 4 | 1434 | D | Halon fire extinguishers are NOT effective when used on which types of fires?   | Fires in electrical equipment                   | Flammable oils and greases                | Class "A" fires in ordinary combustibles | Materials containing their own oxygen      |        |
| 4 | 1435 | B | After the initial cleaning of flue gas in an inert gas system the gas is passed through what device for final cleaning?   | Scrubber  | Demister                                  | Deck water seal                          | Final filter                               |        |
| 4 | 1436 | C | Your vessel's draft is 16'-00" fwd. and 18'-00" aft. The MT1 is 500 ft-tons. How many tons of water must be shifted from the after peak to the forepeak, a distance of 250 feet, to bring her to an even draft forward and aft?     | 52 tons   | 50 tons                                   | 48 tons                                  | 24 tons                                    |        |
| 4 | 1437 | A | You are in a lifeboat when you sight the stars. You will be heading due north when you head for Polaris which is indicated by which letter?   | F   | G   | J  | K  | D007SA |
| 4 | 1439 | C | Safety goggles or glasses are NOT normally worn when _____.   | using a rotary grinder with an installed shield | letting go the anchor                     | handling wire rope or natural fiber line | painting with a spray gun                  |        |
| 4 | 1440 | A | A ship is inclined by moving a weight of 30 tons a distance of 30 ft. from the centerline. A 28-foot pendulum shows a deflection of 12 inches. Displacement including weight moved is 4,000 tons. KM is 27.64 feet. What is the KG? | 21.34 feet                                      | 22.06 feet                                | 22.76 feet                               | 23.21 feet                                 |        |
| 4 | 1441 | B | On small passenger vessels, how many supply and exhaust ducts are required in each enclosed space containing gasoline powered machinery or gasoline fuel tanks?   | 1 of each                                       | 2 of each                                 | 3 of each                                | 4 of each                                  |        |
| 4 | 1442 | D | If the cause of severe list or trim is off-center ballast, counterflooding into empty tanks will _____.   | increase the righting moment                    | increase the righting arm                 | increase list or trim                    | decrease list or trim                      |        |
| 4 | 1444 | A | A stored-pressure water extinguisher is most effective against fires of class _____.  | A   | B   | C  | D  |        |
| 4 | 1445 | B | When instructing a crew member concerning the right way to lift a weight, you would instruct him to _____.  | arch the back to add strength to the muscles    | bend his knees and lift with his legs     | bend his back and stoop                  | bend his back and stoop with arms straight |        |

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|---|------|---|---|--|--|---|--|--------|
| 4 | 1446 | C | A vessel's mean draft is 29'-07". At this draft, the TPI is 152. The mean draft after loading 1360 tons will be _____.  | 29'-09"  | 29'-11"  | 30'-04"   | 30'-07"  |        |
| 4 | 1447 | B | Why is carbon dioxide (CO2) better than dry chemical for fighting a class "C" fire?   | The dry chemical is a conductor.   | The dry chemical leaves a residue.   | CO2 will not dissipate in air.  | It takes smaller amounts of CO2 to cover the same area.  |        |
| 4 | 1448 | B | After making the required notification that a large oil spill into the water has occurred, the FIRST action should be to _____.   | apply straw or sawdust on the oil  | contain the spread of the oil  | throw grains of sand into the oil   | have the vessel move out of the spill area   |        |
| 4 | 1449 | A | A vessel to which Annex V to MARPOL 73/78 applies is located 10 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?            | Food waste, not comminuted or ground   | Rags ground to less than 1"  | Paper ground to less than 1"  | None of the above  |        |
| 4 | 1450 | D | When a vessel is stationary and in a hogging condition, the main deck is under _____.   | compression stress   | racking stress   | shear stress  | tension stress   |        |
| 4 | 1451 | C | Before counterflooding to correct a list, you must be sure the list is due to _____.  | negative GM  | flooding   | off-center weight   | reserve buoyancy   |        |
| 4 | 1452 | C | First aid means _____.  | medical treatment of accident  | setting of broken bones  | emergency treatment at the scene of the injury  | dosage of medications  |        |
| 4 | 1453 | A | The hoods over galley ranges present what major hazard?   | Grease collects in the duct and filter and if it catches fire is difficult to extinguish.                          | In order to effectively draw off cooking heat they present a head-injury hazard to a person of average or more height. | They inhibit the effective operation of fire fighting systems in combating deep fat fryer or range fires. | They concentrate the heat of cooking and may raise surrounding flammable material to the ignition point. |        |
| 4 | 1454 | C | You are in a lifeboat when you sight the stars indicated in illustration D005SA. You will be heading due north when you head for Polaris which is indicated by what letter? | A  | C  | E   | I  | D005SA |
| 4 | 1455 | D | Which statement about AMVER reports is TRUE?  | The sailing plan may be sent in any reasonable time before departure, but not later than 12 hours after departure. | Distress messages should be sent to the AMVER center.  | In the body of the sailing plan report, the letter G is used to indicate a great circle course.           | There are four different message reports in the AMVER system.  |        |
| 4 | 1456 | B | You are reading the draft marks. The water level is at the bottom of number 11. What is the draft?  | 11'-06"  | 11'-00"  | 10'-09"   | 10'-06"  | D032DG |

|   |      |   |  |   |  |  |  |        |
|---|------|---|--|---|--|--|--|--------|
| 4 | 1457 | D | When choosing extinguishers to fight a Class "B" fire do NOT use _____.  | carbon dioxide                          | dry chemical                             | foam (stored-pressure type)                            | water (cartridge-operated)                                 |        |
| 4 | 1458 | D | Your vessel displaces 14,500 tons, with a longitudinal CG 247.5 ft. aft of the FP. If you pump 80 tons of ballast from forward to aft through a distance of 480 feet, your new CG will be _____. | 244.85 feet aft of FP                   | 246.22 feet aft of FP                    | 248.87 feet aft of FP                                  | 250.15 feet aft of FP                                      |        |
| 4 | 1459 | C | Which data is NOT painted on the bow of a lifeboat?  | Number of persons allowed               | Name of the vessel                       | Weight of the boat                                     | Port of registry   |        |
| 4 | 1460 | C | Your vessel has 3 lifeboats on each side. The middle boat on the starboard side is designated as boat number _____.  | 2                                       | 2 STARBOARD                              | 3  | 4  |        |
| 4 | 1461 | A | You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris which is indicated by what letter?   | E                                       | F  | H  | I  | D005SA |
| 4 | 1462 | C | When authorized to use chemical agents on an oil spill they would _____.   | absorb the oil for easy removal         | dissolve the oil in the water            | facilitate the removal of the pollutant from the water | sink the oil   |        |
| 4 | 1463 | B | To prevent the spread of fire by convection you should _____.  | cool the bulkhead around the fire       | close all openings to the area           | shut off all electrical power                          | remove combustibles from direct exposure                   |        |
| 4 | 1464 | B | What is NOT a function of the air supply of a covered lifeboat?  | Provides air for engine combustion      | Pressurizes water spray system           | Provides air for passenger respiration                 | Prevents smoke and other noxious fumes from entering craft |        |
| 4 | 1465 | D | Your vessel has 3 lifeboats on each side. The middle lifeboat on the port side is designated as boat number _____.   | 2                                       | 2 PORT                                   | 3  | 4  |        |
| 4 | 1466 | D | You used a carbon dioxide (CO2) fire extinguisher but did not empty the extinguisher. You must have it recharged if the weight loss exceeds _____.   | one percent of the weight of the charge | five percent of the weight of the charge | seven percent of the weight of the charge              | ten percent of the weight of the charge                    |        |
| 4 | 1467 | B | Your vessel has a forward draft of 26'-11" and an after draft of 29'-07". How many tons of cargo can be loaded before the vessel reaches a mean draft of 28'-06" if the TPI is 69?               | 204 tons                                | 207 tons                                 | 210 tons   | 213 tons   |        |

|   |      |   |   |   |   |   |  |         |
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| 4 | 1468 | C | You are on the SS American Mariner and involved in a collision. Your draft has increased uniformly and there is about 4 feet of freeboard remaining. The vessel is on an even keel and has a long rolling period. The roll is sluggish, and the vessel hangs at the ends of a roll. Which of the following actions would you take first to correct the situation? | Pump out a slack double bottom tank to reduce free surface. | Flood any empty double bottom tanks to decrease KG. | Jettison topside weights to increase freeboard.                       | Pump out flooding water in the cargo holds to reduce free surface. |         |
| 4 | 1470 | B | If your vessel has a list to port due to negative GM and off-center weight, the first corrective measure you should take is to _____.   | move port-side main-deck cargo to the starboard side        | fill the starboard double-bottom                    | pump water from the port double-bottom to the starboard double-bottom | pump water from the port double-bottom over the side               |         |
| 4 | 1471 | A | What do regulations allow to be marked with EITHER the name of the fishing vessel OR the name of the person to whom it is assigned?   | Immersion suit  | Buoyant apparatus                                   | Ring buoy   | Life float   |         |
| 4 | 1472 | D | You are reading the draft marks in illustration D032DG. The water level forward is 4 inches below the 11, and the water level aft is 2 inches below the top of the 11. What is the mean draft?  | 11'-08"   | 11'-06"   | 11'-04"   | 11'-00"  | D032DG  |
| 4 | 1473 | D | You are in a lifeboat when you sight the stars as shown. You will be heading due north when you head for Polaris which is indicated by which letter?  | A   | B   | D   | E  | D005SA  |
| 4 | 1474 | C | In cleaning up an oil spill, straw is an example of a _____.  | chemical agent  | blocker   | sorbent   | None of the above  |         |
| 4 | 1475 | C | You need to pull the sea anchor back aboard your liferaft. What part of the anchor do you pull on?  | Drag line   | Bridle  | Trip line   | Iron ring  |         |
| 4 | 1477 | B | A fire starts on your vessel while refueling. You should FIRST _____.   | stop the ventilation  | sound the general alarm                             | determine the source of the fire                                      | attempt to extinguish the fire                                     |         |
| 4 | 1478 | C | There is a fire in the crew's quarters of your vessel. You should _____.  | ventilate the quarters as much as possible                  | prepare to abandon ship                             | close all ventilation to the quarters if possible                     | attempt to put the fire out yourself before sounding the alarm     |         |
| 4 | 1479 | A | If your vessel is aground at the bow, it would be preferable that any weight removals be made from the _____.   | bow   | mid-section   | stern   | All of the above   |         |
| 4 | 1480 | D | You are on a supply run to an offshore drilling rig. On board is the cargo listed. What is the height above the main deck of the center of gravity of the cargo?  | 2.23 feet   | 1.93 feet   | 1.82 feet   | 1.38 feet  | ST-0039 |

|   |      |   |  |   |                                   |                                      |  |        |
|---|------|---|--|---|-----------------------------------|--------------------------------------|--|--------|
| 4 | 1481 | D | You are reading the draft marks in illustration D032DG. The water level is at the top of number 8. What is the draft?  | 7'-09"  | 8'-00"                            | 8'-03"                               | 8'-06"   | D032DG |
| 4 | 1483 | B | The SS AMERICAN MARINER is partially loaded with a GM of 3.1 feet and drafts of: FWD 19'-06", AFT 21'-04". Use the white pages of the Stability Data Reference Book to determine what tank(s) you should ballast to increase the GM to 3.7 feet. | Tanks: DT1  | Tanks: DB3, DT8                   | Tanks: DB2, DB7                      | Tanks: DB5   |        |
| 4 | 1484 | D | The SS AMERICAN MARINER is partially loaded with a GM of 3.1 feet and drafts of: FWD 16'-00", AFT 18'-04". Use the white pages of the Stability Data Reference Book to determine what tank(s) you should ballast to increase the GM to 3.6 feet. | Tanks: DB1, DT1A  | Tanks: DT6, DT7                   | Tank: DT8                            | Tank: DB3  |        |
| 4 | 1486 | A | A cargo of 30 tons is to be loaded on deck 30 feet from the ship's centerline. The ship's displacement including the 30 tons cargo will be 9,000 tons and the GM will be 5 feet. The list of the vessel after loading this cargo will be _____.  | 1.14°   | 2.05°                             | 2.31°                                | 3.40°  |        |
| 4 | 1487 | B | A vessel's heavy displacement is 24,500 tons with light displacement of 13,300 tons. Fully loaded it carries 300 tons of fuel and stores. What is the vessel's deadweight?   | 10,900 tons   | 11,200 tons                       | 13,000 tons                          | 24,200 tons  |        |
| 4 | 1488 | C | When compared to a high-expansion foam, a low-expansion foam will _____.   | be dryer  | be lighter                        | be more heat resistant               | cling to vertical surfaces                                 |        |
| 4 | 1489 | A | The boat command that means complete the stroke and level the oars horizontally with the blades trimmed fore and aft is _____.   | "Oars"  | "Up oars"                         | "Way enough"                         | "Hold water"   |        |
| 4 | 1490 | C | You are reading the draft marks as shown. The water level forward leaves about 4 inches of the 11 visible, and the water level aft is at the top of the 10. What is the mean draft?  | 10'-06"   | 10'-08"                           | 10'-10"                              | 11'-02"  | D032DG |
| 4 | 1491 | A | You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by what letter?   | C   | D                                 | E                                    | G  | D006SA |
| 4 | 1492 | D | You have abandoned ship. There are several rafts in the water. One of the FIRST things to do is _____.   | separate the rafts as much as possible to increase chances of detection | transfer all supplies to one raft | transfer all the injured to one raft | secure the rafts together to keep them from drifting apart |        |

|   |      |   |  |   |   |                                     |  |         |
|---|------|---|--|---|---|-------------------------------------|--|---------|
| 4 | 1493 | A | A new liferaft has been installed on your vessel. The operating cord should be _____.  | attached to the raft stowage cradle or to a secure object nearby with a weak link | checked to see that it's unattached         | coiled neatly on the raft container | faked on deck and lead through a chock |         |
| 4 | 1494 | A | Your vessel has 3 lifeboats on each side. The aftermost boat on the port side is designated as boat number _____.  | 6   | 5   | 3                                   | 3 PORT                                 |         |
| 4 | 1495 | C | A weight of 350 tons is loaded on your vessel 85 feet forward of the tipping center. The vessel's MT1 is 1150 foot-tons. What is the total change of trim?   | 12.93 inches  | 23.75 inches                                | 25.87 inches                        | 38.50 inches                           |         |
| 4 | 1496 | D | Your vessel has been holed in #1 hold and partially flooded. The hole is plugged against further flooding. In calculating the effect of the flooding on your transverse stability, you should use which method?                            | Compartment standard method   | Lost buoyancy method                        | Factor of subdivision method        | Added weight method                    |         |
| 4 | 1497 | B | While operating off Panama a seaman is injured. What indicator should be included in the preamble of a radio telegram requesting medical advice from a Panamanian station?   | RADIO MEDICAL   | DH MEDICO                                   | XXX                                 | MEDRAD                                 |         |
| 4 | 1498 | A | The spread of fire is prevented by _____.  | cooling surfaces adjacent to the fire   | leaving combustibles in the endangered area | increasing the oxygen supply        | All of the above                       |         |
| 4 | 1499 | B | A cargo of 60 tons is to be loaded on deck 20 feet from the ship's centerline. The vessel's displacement including the 60 ton cargo will be 6,000 tons and the GM two feet. The list of the vessel after loading this cargo will be _____. | 5.4°  | 5.72°                                       | 6.12°                               | 6.4°                                   |         |
| 4 | 1500 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 6.9 ft   | Available GM 5.3 ft                         | Available GM 4.1 ft                 | Available GM 3.8 ft                    | ST-0040 |
| 4 | 1501 | B | You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by which letter?  | B   | C   | F                                   | H                                      | D006SA  |



|   |      |   |   |  |   |   |  |        |
|---|------|---|---|--|---|---|--|--------|
| 4 | 1502 | B | A portable foam (stored-pressure type) fire extinguisher would be most useful in combating a fire in _____.   | generators   | oil drums   | the bridge controls   | combustible metals                                   |        |
| 4 | 1503 | D | If you have to jump in the water when abandoning ship, your legs should be _____.   | spread apart as far as possible  | held as tightly against your chest as possible                            | in a kneeling position  | extended straight down and crossed at the ankles     |        |
| 4 | 1504 | C | You are reading the draft marks in illustration D032DG. The water level is about 4 inches below the bottom of 10. What is the draft?  | 10'-04"  | 10'-02"   | 9'-08"  | 9'-04"   | D032DG |
| 4 | 1505 | D | What is one of the FIRST things you would do on boarding an inflatable liferaft?  | Open equipment pack.   | Post a lookout.   | Issue anti-seasickness medicine.  | Pick up other survivors.                             |        |
| 4 | 1506 | C | Before hydraulic starting of an engine on a covered lifeboat, what need NOT be checked?   | Fuel supply line valve   | Pressure registered on the accumulator gauge                              | Cold-spark voltage readings test lamp   | Engine stop control                                  |        |
| 4 | 1507 | D | A thrust block is designed to _____.  | absorb the shock of wave pressure at the bow   | be placed between the engines and the foundation to absorb the vibration  | transmit the thrust of the engine to the propeller                                      | transmit the thrust of the propeller to the vessel   |        |
| 4 | 1508 | A | Portable foam fire-extinguishers are designed for use on class _____.   | A and class B fires  | A and class C fires   | B and class C fires   | A, class B, and class C fires                        |        |
| 4 | 1509 | C | You are using an oxygen indicator. How long should you wait after the sample is drawn into the instrument before reading the meter?   | No wait is necessary, the reading occurs immediately.  | At least 5 seconds  | At least 10 seconds   | At least 20 seconds                                  |        |
| 4 | 1510 | D | You are in enemy port and have received a General Emergency message announcing the outbreak of war in Europe. You are directed to comply with the instructions in NGA (NIMA) PUB 117, Chapter eight. Which statement is TRUE? | If on a coastwise voyage along the east coast of the U.S., you should put into the nearest port. | You should only enter a port in the danger zone during hours of darkness. | When over 200 hundred miles from a port in the danger zone, you should not darken ship. | You should attempt to submit an AMVER report to NSA. |        |
| 4 | 1511 | B | Which step should normally be taken FIRST by those who have boarded a liferaft in an emergency?   | Ration food and water supplies.  | Take anti-seasickness pills, if available.                                | Determine position and closest point of land.   | Check pyrotechnic supplies.                          |        |
| 4 | 1512 | D | Where are the draft marks required to be displayed on a ship?   | Deep tanks   | Voids   | Midships near the waterline   | Area of water line near stem and stern               |        |
| 4 | 1513 | D | Limit switches, winches, falls, etc. must be thoroughly inspected at least every _____.   | 2 months   | 4 months  | 6 months  | year   |        |
| 4 | 1514 | A | "Thermal protective aids" are required for what percentage of the persons a survival craft is equipped to carry?  | 10%  | 50%   | 75%   | 100%   |        |

|   |      |   |   |  |  |  |   |        |
|---|------|---|---|--|--|--|---|--------|
| 4 | 1515 | A | You see an iceberg that has not been reported. What kind of radio message do you transmit to warn others?   | Safety message   | Urgency message  | Distress message   | Routine message   |        |
| 4 | 1516 | C | While operating off the coast of Portugal, a seaman is injured. What indicator should be used in a message requesting medical advice from a Portuguese station? | MEDICAL RADIO  | DH MEDICO  | XXX RADIOMEDICAL   | PORT HEALTH   |        |
| 4 | 1517 | C | A double male coupling is one that _____.   | has left hand twist  | has inside threads on both ends  | has outside threads on both ends                                     | takes two men to operate  |        |
| 4 | 1518 | A | You are approaching another vessel and see that she has the signal flag "J" hoisted. What should you do?  | Keep well clear of the vessel because she is on fire and has dangerous cargo on board or she is leaking dangerous cargo. | Attempt to call the vessel on VHF radiotelephone because she is requesting to communicate. | Approach the vessel with caution because she is dragging her anchor. | Proceed on present course and speed since the vessel is requesting a tug. |        |
| 4 | 1519 | B | All oil spills must be reported to the _____.   | U.S. Corps of Engineers  | U.S. Coast Guard   | local police   | local fire department   |        |
| 4 | 1520 | B | When operating the air supply system in a covered lifeboat the _____.   | fuel supply valve should be closed   | hatches, doors, and oar ports should be closed   | air cylinder shut-off valve should be closed                         | engine should be shut off   |        |
| 4 | 1521 | C | You are in a lifeboat when you sight the stars shown. You will be heading almost due north when you head for Polaris which is marked by what letter?            | A  | B  | C  | D   | D006SA |
| 4 | 1522 | D | The pollution prevention regulations in MARPOL apply to U. S. flag vessels _____.   | only on the Great Lakes and international waters   | only on the western rivers and international waters  | only on international voyages outside U.S. territorial waters        | on all international and inland waters                                    |        |
| 4 | 1523 | D | The term "oil" as used in the Oil Pollution Regulations means _____.  | fuel oil   | sludge   | oil refuse   | All of the above  |        |
| 4 | 1524 | D | A U.S. merchant vessel in ocean service is NOT subject to the requirements of Annex V to MARPOL 73/78 _____.  | outside of 25 nautical miles from nearest land   | outside of the navigable waters of the United States                                       | in the waters of those countries not signatory to MARPOL             | A U.S. vessel in ocean service is ALWAYS subject to MARPOL.               |        |
| 4 | 1525 | C | You are reading the draft marks. The top 2 inches of number "9" are visible above the waterline. What is the draft?   | 8'-10"   | 9'-02"   | 9'-04"   | 9'-08"  | D032DG |
| 4 | 1526 | C | Which type of portable fire extinguishers is NOT designed for use on flammable liquid fires?  | Foam   | Dry chemical   | Water (cartridge-operated)   | Carbon dioxide  |        |

|   |      |   |   |   |   |  |   |        |
|---|------|---|---|---|---|--|---|--------|
| 4 | 1527 | C | You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.  | latitude, longitude and approximate depth of water  | latitude, longitude, course, speed, and a copy of that days noon position slip                  | latitude, longitude, and estimated distance from shore                       | latitude and longitude only   |        |
| 4 | 1528 | C | You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.  | home port   | next port-of-call   | official number  | Master  |        |
| 4 | 1530 | D | Which vessel in ocean service is not subject to Annex V of MARPOL 73/78?  | A 20-foot sailing vessel  | A 26-foot tug and tow   | An uninspected 35-foot passenger vessel                                      | A Navy Destroyer  |        |
| 4 | 1531 | B | You intend to discharge medical or hazardous wastes ashore. MARPOL Annex V requires you to notify a receiving port or terminal in advance. How much advance notice is required? | 12 hours  | 24 hours  | 48 hours   | Advance notification is not required.                                     |        |
| 4 | 1532 | B | You are in a lifeboat when you sight the stars shown. You will be heading due north when you head for Polaris, which is indicated by which letter?                              | A   | E   | G  | H   | D005SA |
| 4 | 1533 | D | Which statement is TRUE?  | You need not keep a record of ground garbage dumped into the sea more than 25 miles offshore. | You need not keep a record of garbage incinerated on the ship.                                  | You must keep a record of the approximate weight of the garbage dumped.      | You must keep a record of garbage discharged in port to a shore facility. |        |
| 4 | 1534 | A | Which statement is TRUE?  | You must keep a record of garbage discharged in port to a shore facility.                     | You need not keep a record of dumping ground garbage in to the sea more than 25 miles offshore. | You must keep a record of the approximate weight of the garbage dumped.      | You need not keep a record of garbage incinerated on the ship.            |        |
| 4 | 1535 | C | Limit switches _____.   | control the descent rate of a lifeboat  | control the ascent rate of a lifeboat   | cut off power to the winch when the lifeboat nears the final stowed position | cut off power to the winch when the lifeboat reaches the davit bumpers    |        |
| 4 | 1536 | D | Which types of portable fire extinguishers are designed for putting out electrical fires?   | Foam and water (stored pressure)  | Foam and carbon dioxide   | Foam and dry chemical  | Dry chemical and carbon dioxide   |        |
| 4 | 1537 | D | How should longitude 119°56.3'W be written when preparing an AMVER report?  | V19.9   | 120°W   | 119.9W   | 11956W  |        |
| 4 | 1538 | A | Your oceangoing vessel is required to have a waste management plan. This plan must be in writing and describe procedures for _____.   | collecting and discharging garbage  | disposing waste from marine sanitation devices  | reducing the amount of shipboard waste                                       | segregating the different types of shipboard waste                        |        |

|   |      |   |   |   |  |   |  |         |
|---|------|---|---|---|--|---|--|---------|
| 4 | 1539 | D | The AMVER system requires _____.  | sailing plans to be sent before departure   | more frequent reports in heavy weather   | arrival reports to be sent within 8 hours of arrival                | a position report within 24 hours of departure                     |         |
| 4 | 1540 | A | Which statement concerning the sources of drinking water is FALSE?  | Fresh water may be obtained from fish.  | Lifeboat covers or canopies should be washed with rain before drinking water is collected. | Fresh water may be collected from condensation inside the liferaft. | Seawater should never be consumed.                                 |         |
| 4 | 1541 | D | Which would be considered pollution under the U.S. water pollution laws?  | Garbage   | Hazardous substances   | Oil   | All of the above   |         |
| 4 | 1542 | C | The SS AMERICAN MARINER has the following drafts: FWD 09'-10", AFT 15'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.91 feet   | 2.09 feet  | 2.21 feet   | 2.48 feet  | ST-0041 |
| 4 | 1543 | C | The ship station license for your radiotelephone is valid for _____.  | one year  | two years  | ten years   | the life of the vessel   |         |
| 4 | 1544 | D | While operating your oceangoing vessel you must keep a record of any discharge or disposal of garbage. These entries shall be made _____.   | before the end of the voyage  | before arriving at your next port  | no later than 24 hours after disposal of the garbage                | at the time the garbage was disposed                               |         |
| 4 | 1545 | D | Preventer bars are fitted on lifeboat releasing hooks to prevent _____.   | the falls from unhooking if the releasing gear is operated accidentally while the boat is being lowered | operation of the release lever until the boat is waterborne                                | the falls from rehooking after they have been released              | accidental unhooking when the falls become slack                   |         |
| 4 | 1546 | B | What are the most important reasons for using water fog to fight fires?   | Smothers burning surfaces, organically destroys fuel  | Cools fire and adjacent surfaces, provides protective barrier                              | Reaches areas not protected by steam or CO2 smothering systems      | Allows fire to be attacked from leeward, saturates liquid surfaces |         |
| 4 | 1547 | C | If you must swim through an oil fire, you should NOT _____.   | wear as much clothing as possible   | enter the water feet first   | swim with the wind  | cover eyes with one hand when entering the water                   |         |

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|---|------|---|--|--|--|---|---|--|
| 4 | 1548 | D | You have abandoned your vessel. You are in a liferaft and have cleared away from your vessel. One of your FIRST actions should be to _____.  | take measures to maintain morale           | prepare and use radio equipment  | identify the person in charge of liferaft   | search for survivors  |  |
| 4 | 1549 | C | You are sailing in a strong wind and may accidentally jibe when _____.   | reaching                                   | tacking  | running-free  | in irons  |  |
| 4 | 1550 | B | The purpose of a water spray system on a covered lifeboat is to _____.   | cool the lifeboat engine                   | keep the lifeboat from reaching combustion temperature while operating in a fire | keep the lifeboat warm in a cold climate by applying heated water spray from the engine to the boat | put out a fire inside the lifeboat                            |  |
| 4 | 1551 | A | On inspected cargo vessels, each fire station is required to be fitted with a hose which has a nominal diameter of _____.  | 1-1/2 or 2-1/2 inches                      | 2 or 3 inches  | 2-1/2 or 3-1/2 inches   | 3 or 4 inches   |  |
| 4 | 1552 | A | BOTH INTERNATIONAL & INLAND A sailing vessel must keep course and speed when _____.  | being overtaken                            | to windward of another sailing vessel  | to leeward of another sailing vessel  | crossing a vessel engaged in fishing                          |  |
| 4 | 1554 | C | The SS NORTHLAND is loaded to drafts: FWD 32'-04", AFT 34'-02". The KG is 31.5 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline). | 3.4°                                       | 4.7°   | 6.4°  | 7.9°  |  |
| 4 | 1555 | D | Seawater may be used for drinking _____.   | at a maximum rate of two ounces per day    | after mixing with an equal quantity of fresh water                               | if gathered during or immediately after a hard rain   | under no conditions   |  |
| 4 | 1556 | A | Which fire extinguishing agent has the greatest capacity for absorbing heat?   | Water                                      | Foam   | Dry chemical  | Carbon Dioxide  |  |
| 4 | 1557 | B | When a sea anchor for a lifeboat is properly rigged, it will _____.  | completely stop the lifeboat from drifting | help to prevent broaching  | prevent the lifeboat from pitching  | None of the above   |  |
| 4 | 1558 | C | A Halon 1301 cylinder is periodically tested for weight loss and pressure loss. What minimum percentage of the full pressure can be lost before the cylinder must be recharged?  | 3%   | 5%   | 10%   | 15%   |  |
| 4 | 1560 | C | The most important reason for taking anti-seasickness pills as soon as possible after entering a liferaft is to _____.   | assist in sleeping                         | reduce appetite by decreasing nausea   | prevent loss of body moisture by vomiting   | prevent impaired judgment due to motion-induced deliriousness |  |

|   |      |   |   |  |   |   |   |         |
|---|------|---|---|--|---|---|---|---------|
| 4 | 1561 | B | Which is NOT a mandatory part of the shipboard Oil Pollution Emergency Plan?  | Reporting requirements   | Diagrams  | Steps to control a discharge  | National and local coordination               |         |
| 4 | 1562 | D | Drinking salt water will _____.   | protect against heat camps   | prevent seasickness   | be safe if mixed with fresh water   | dehydrate you                                 |         |
| 4 | 1563 | B | Who should inspect and test an inflatable liferaft?   | The person in charge   | An approved servicing facility                              | Shipyards personnel   | A certificated lifeboatman                    |         |
| 4 | 1564 | A | Which action is routinely performed at the annual servicing and inspection of a dry-chemical cartridge-operated portable fire extinguisher?   | Insure the chemical is powdery.  | Replace the cartridge.                                      | Pressure test the discharge hose.   | Test the pressure gauge for proper operation. |         |
| 4 | 1565 | A | What correctly expresses the time of 1122 (ZD +6) on 6 April 1981, for use in an AMVER report?  | 061722Z  | 06 1122 ZD+6  | G1722 06APR81   | 1122Z6 06APR                                  |         |
| 4 | 1566 | B | CO2 extinguishes a fire by _____.   | cooling  | smothering  | chemical action   | All of the above                              |         |
| 4 | 1567 | B | Your vessel is carrying 84,000 barrels of oil for discharge. The cargo hoses have an inside diameter of 14 inches. When four hoses are connected to the manifold, the container around the manifold must hold a total of how many barrels?                      | Three  | Four  | Twelve  | Sixteen                                       |         |
| 4 | 1568 | C | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2464 tons of cargo on board with a KG of 27.3 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 27.0 feet   | KG 27.8 feet  | KG 28.6 feet  | KG 29.8 feet                                  | ST-0042 |
| 4 | 1569 | D | Which list is NOT required to be provided as part of the appendices of the Shipboard Oil Pollution Emergency Plan?  | A list of agencies or officials of Coastal State Administrators responsible for receiving and processing incident reports. | A list of agencies or officials in regularly visited ports. | A list specifying who will be responsible for informing the parties listed and the priority in which they must be notified. | A list of personnel duty assignments.         |         |
| 4 | 1570 | A | Which is a mandatory section of the shipboard Oil Pollution Emergency Plan?   | Reporting requirements   | Removal equipment list                                      | Planned exercises   | List of individuals required to respond       |         |
| 4 | 1571 | B | A Halon 1301 cylinder is periodically tested for weight loss and pressure loss. It must be recharged if it has lost more than what minimum percentage of its weight?  | 3%   | 5%  | 10%   | 15%   |         |
| 4 | 1572 | C | Your fishing vessel operates more than 25 miles from the coastline on the Great Lakes. Which distress signal is NOT required to be on board?  | 3 red parachute flares   | 6 red hand flares   | 1 electric distress light   | 3 orange smoke signals                        |         |

|   |      |   |   |   |   |  |   |  |
|---|------|---|---|---|---|--|---|--|
| 4 | 1573 | C | The searchlight on a survival craft must be capable of operating 3 hours continuously or 6 hours intermittently if operated in cycles of _____.                     | 5 minutes on and 10 minutes off   | 10 minutes on and 5 minutes off   | 15 minutes on and 5 minutes off  | 15 minutes on and 10 minutes off                              |  |
| 4 | 1575 | A | Foam extinguishes a fire by _____.  | smothering the burning material   | chemical combination with burning material  | absorbing the burning material   | organic destruction of the burning material                   |  |
| 4 | 1576 | A | What is the minimum number of bolts required in a permanently connected flange oil hose coupling?   | A bolt must be used in every hole.  | 6   | 4  | 3   |  |
| 4 | 1577 | B | What is the minimum number of bolts required in a temporary bolted flange oil hose coupling?  | 3   | 4   | 6  | A bolt must be used in every hole.                            |  |
| 4 | 1578 | B | You may not act as person-in-charge of oil transfer operations on more than one vessel at a time _____.   | under any circumstances   | unless authorized by the Captain of the Port  | unless radio communication is set up between the vessels   | unless the vessels are moored clear of all docks              |  |
| 4 | 1579 | A | During oil transfer operations, who is responsible for ensuring that the posted transfer procedures are followed?   | The designated person in charge   | The tankerman   | The senior able seaman   | The oiler   |  |
| 4 | 1580 | C | Which statement is TRUE concerning the placard entitled "Discharge of Oil Prohibited"?  | It is required on all vessels.  | It is only required in the wheelhouse.  | It may be located at the bilge and ballast pump control station.   | All of the above  |  |
| 4 | 1581 | B | When using the oxygen indicator, which reaction from the needle should you expect as a sample is drawn into the instrument?   | Rise to the correct reading and then, slowly fall to zero as the oxygen in the sample is consumed | Move back and forth and finally stabilize at the correct reading after about 10 seconds | Rise to the correct reading immediately and then rise slowly to a false reading as the operating temperature increases | Slowly rise to the correct reading and then remain stationary |  |
| 4 | 1582 | D | You are off the coast of South Africa, when a seaman is injured. What indicator should be used in a message requesting medical advice from a South African station? | DH MEDICO   | XXX RADIOMEDICAL  | MEDRAD   | PORT HEALTH   |  |
| 4 | 1583 | A | You are having a Coast Guard inspection. All carbon dioxide fire extinguishers aboard will be _____.  | weighed   | discharged and recharged  | checked for pressure loss  | sent ashore to an approved service facility                   |  |
| 4 | 1585 | C | Up to two thirds of a survival crafts required drinking water may be produced by a manually-powered reverse osmosis desalinator if it can be done in _____.         | 12 hours  | 1 day   | 2 days   | 4 days  |  |

|   |      |   |   |   |  |  |  |         |
|---|------|---|---|---|--|--|--|---------|
| 4 | 1586 | B | The success of an indirect attack on a fire depends on the _____.   | size of the fire when initially observed                                    | complete containment of the fire   | cooling ability of the firefighting agent                            | class of the fire  |         |
| 4 | 1588 | A | How should longitude 119°16.7'E be written when preparing an AMVER report?  | 11917E  | Q193   | 119.3°E  | 119E   |         |
| 4 | 1589 | B | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3284 tons of cargo on board with a KG of 26.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 25.0 feet  | KG 25.5 feet   | KG 26.1 feet   | KG 26.7 feet   | ST-0043 |
| 4 | 1591 | B | You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.  | latitude, longitude, and approximate depth of water                         | latitude, longitude, and estimated distance from shore                   | latitude and longitude only  | latitude, longitude, course, speed, and a copy of that days noon position slip |         |
| 4 | 1592 | A | A vessel has a cargo hold divided by a shaft alley into two tanks, each 35 feet long and 20 feet wide. Each tank is half filled with sea water. The vessel displaces 5,000 tons. The reduction in GM due to free surface effect is _____.                       | .27 foot  | .30 foot   | .31 foot   | .33 foot   |         |
| 4 | 1593 | C | When launching an open lifeboat by falls, the boathooks should be _____.  | secured forward and aft where readily available                             | secured amidships where they will not hinder the personnel               | used for fending off   | used for picking up survivors in the water                                     |         |
| 4 | 1594 | B | Which statement is TRUE concerning buoyant work vests aboard tank vessels?  | They may be worn while working on deck but not while working over the side. | They must be used only under supervision of a designated ship's officer. | They will be accepted for up to 10% of the required life preservers. | They may be worn during drills.  |         |
| 4 | 1596 | C | By regulation, orange smoke distress signals will expire not more than how many months from the date of manufacture?  | 24 months   | 36 months  | 42 months  | 54 months  |         |
| 4 | 1597 | A | Which characteristic is an advantage of Halon as a fire extinguishing medium?   | Electrically non-conductive   | Relatively inexpensive   | Effective against chemicals containing an oxidizer                   | All of the above   |         |
| 4 | 2675 | C | The heavier outboard strake of deck plating on a MODU is called the deck _____.   | stiffener   | beam   | stringer   | doubler  |         |
| 4 | 2676 | C | A safe fuel system must _____.  | prevent engine overheating  | have proper air/gasoline fuel mixture ratio                              | be liquid- and vapor-tight   | supply sufficient air to the intake manifold                                   |         |



|   |      |   |  |  |                                  |                                       |  |         |
|---|------|---|--|--|----------------------------------|---------------------------------------|--|---------|
| 4 | 2677 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 4.0 feet   | 5.6 feet                         | 6.0 feet                              | 6.8 feet   | ST-0075 |
| 4 | 2678 | B | What happens to the pulling power of a winch when retrieving wire rope?  | It increases   | It decreases                     | It remains the same                   | It fluctuates, depending on the gearing system         |         |
| 4 | 2679 | D | The primary hazard of liquefied petroleum gas and liquefied natural gas is _____.  | pressure   | toxicity                         | temperature                           | flammability   |         |
| 4 | 2680 | C | You are loading benzyl chloride and a small quantity spills on deck. According to the Chemical Data Guide, which of the following may be used as a substitute for water for the cleanup procedure?   | Alcohol  | Sodium bisulfite                 | Sodium carbonate                      | Soda ash solution                                      |         |
| 4 | 2681 | A | You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.   | official number  | home port                        | Master                                | next port-of-call                                      |         |
| 4 | 2682 | B | The purpose of fuses in electric wiring is to _____.   | allow for cutting out branch circuits                  | prevent overloading the circuits | reduce voltage to the branch circuits | permit the use of smaller wiring for lighting circuits |         |
| 4 | 2683 | A | On a MODU, the deck stringer is the outboardmost deck _____.   | plating  | beam                             | stiffener                             | stanchion  |         |
| 4 | 2684 | B | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and holds 4 and 5 flood, the vessel will sink if the permeability exceeds what percent? | 22   | 28                               | 34                                    | 39   |         |
| 4 | 2685 | C | The number of certificated able seamen and lifeboatmen required on a MODU is determined by the _____.  | Minerals Management Service                            | Corps of Engineers               | Coast Guard                           | American Bureau of Shipping                            |         |
| 4 | 2686 | A | Which tank barges require draft marks?   | All tank barges  | Notch barges over 1000 GT        | Tank barges over 100 GT               | Tank barges over 50 GT                                 |         |
| 4 | 2687 | C | As a vessel changes course to starboard, the compass card in a magnetic compass _____.   | first turns to starboard then counterclockwise to port | also turns to starboard          | remains aligned with compass north    | turns counterclockwise to port                         |         |
| 4 | 2688 | C | The vapor pressure of a gas is the pressure necessary to keep it in a(n) _____.  | soluble state  | solid state                      | liquefied state                       | inert state  |         |

|   |      |   |   |   |  |   |                                  |         |
|---|------|---|---|---|--|---|----------------------------------|---------|
| 4 | 2689 | A | A vessel with a large GM will _____.  | have more resistance to listing in case of damage | have less tendency to have synchronous rolling         | be less likely to have cargo shift                  | ride more comfortably            |         |
| 4 | 2690 | C | Heavy fuel oils when spilled are _____.   | more harmful to sea life than lighter oils        | easier to clean up than lighter refined oils           | less harmful to sea life than lighter oils          | not a real threat to marine life |         |
| 4 | 2691 | D | Two individuals authorized to serve as a lifeboatman must be assigned to any lifeboat that has a capacity of more than _____.   | 10 persons  | 20 persons   | 30 persons  | 40 persons                       |         |
| 4 | 2692 | D | Your vessel's drafts are: FWD 22'-04", AFT 22'-10"; and the KG is 22.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 45° inclination.   | 1.8 feet  | 2.6 feet   | 2.9 feet  | 3.6 feet                         |         |
| 4 | 2693 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.                                    | 1171.5 tons                                       | 1311.0 tons  | 1503.0 tons   | 1912.5 tons                      | ST-0076 |
| 4 | 2694 | C | The heading of a vessel is indicated by what part of the compass?   | Card  | Needle   | Lubber's line                                       | Gimbals                          |         |
| 4 | 2695 | C | A certificated lifeboatman assigned to command the lifeboat must _____.   | be the first individual to board the craft        | drain the hydraulic pressure before lowering the craft | have a list of the persons assigned to the lifeboat | All of the above                 |         |
| 4 | 2696 | C | Your vessel's drafts are: FWD 27'-09", AFT 28'-03"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.6 feet off the centerline. | 16°   | 20°  | 24°   | 30°                              |         |
| 4 | 2697 | B | In order to withstand fluid head pressure on a MODU, stiffeners are often attached to the bulkhead _____.   | penetrations                                      | plating  | framing   | brackets                         |         |
| 4 | 2698 | A | Using a sea anchor will _____.  | reduce your drift rate                            | keep the liferaft from turning over                    | aid in recovering the liferaft                      | increase your visibility         |         |

|   |      |   |  |                                       |                                 |                          |                                   |         |
|---|------|---|--|---------------------------------------|---------------------------------|--------------------------|-----------------------------------|---------|
| 4 | 2699 | B | Your vessel displaces 10,000 tons and has a KG of 22.6 feet. What will be the length of the remaining righting arm at an angle of inclination of 45° if the center of gravity shifts 2.0 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)                       | 3.8 feet                              | 2.7 feet                        | 1.9 feet                 | 0.9 foot                          |         |
| 4 | 2700 | B | According to the regulations, what fire safety control feature is required in quick-closing shut off valves?   | Electrical cut off switch             | A fusible link                  | Manual cut off switch    | A water spray actuator            |         |
| 4 | 3071 | A | The free surface effects of a partially-full tank in a floating MODU increase with the _____.  | surface area of the fluid in the tank | displacement volume of the MODU | draft of the MODU        | height of the tank above the keel |         |
| 4 | 3072 | B | The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.  | LCG-FP 272.6 feet                     | LCG-FP 269.8 feet               | LCG-FP 266.5 feet        | LCG-FP 263.8 feet                 | ST-0101 |
| 4 | 3073 | B | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.   | FWD 27'-01", AFT 29'-11"              | FWD 27'-03", AFT 29'-09"        | FWD 27'-05", AFT 29'-07" | FWD 27'-07", AFT 29'-05"          | ST-0102 |
| 4 | 3074 | B | Your sailing drafts are: FWD 17'-07", AFT 18'-03" and the GM is 2.8 feet. What will be the angle of list if the #4 starboard double bottom (capacity 141 tons, VCG 2.6 feet, and 23.8 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | 6°                                    | 8°                              | 10°                      | 12°                               |         |
| 4 | 3075 | B | Although KG for a MODU in lightweight is relatively high, the vessel is stiff because _____.   | KM is small                           | KM is high                      | BL is small              | KB is large                       |         |
| 4 | 3076 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.  | 0.87 foot                             | 0.98 foot                       | 1.14 feet                | 1.25 feet                         | ST-0103 |

|   |      |   |  |  |   |   |  |         |
|---|------|---|--|--|---|---|--|---------|
| 4 | 3077 | A | The purpose of the inclining experiment on a MODU is to determine the _____.   | lightweight and lightweight center of gravity location                     | position of the center of buoyancy                              | position of the metacenter                                    | maximum load line  |         |
| 4 | 3078 | D | If you see an individual fall overboard, you should _____.   | throw him/her a life buoy  | hail "man overboard"  | pass the word to the bridge                                   | All of the above   |         |
| 4 | 3080 | C | When inspecting a tank barge to see that it has all the required fire extinguishers and other safety items aboard, which of the following is the best source for determining what is required? | The supervisor in charge of the dock to which the barge is tied up         | Part 38 of the Rules and Regulations for Tank Vessels           | The Certificate of Inspection of the barge                    | The local fire marshal   |         |
| 4 | 3081 | B | A person who observes an individual fall overboard from an OSV should _____.   | immediately jump into the water to assist the individual                   | call for help and keep the individual in sight                  | run to the radio room to send an emergency message            | go to the control room for the distress flares   |         |
| 4 | 3082 | B | On vessels subject to the provisions of 46 CFR Subchapter T, life jackets shall be _____.  | kept locked up at all times when underway                                  | stored in convenient places throughout the accommodation spaces | inaccessible to passengers                                    | on the topmost deck of the vessel at all times   |         |
| 4 | 3083 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 7.7 feet   | 9.1 feet  | 9.9 feet  | 10.7 feet  | ST-0104 |
| 4 | 3084 | C | All life floats and buoyant apparatus shall be clearly and legibly marked or painted with the _____ (small passenger vessel regulations)   | manufacturer's price, stock number, and inspection date                    | vessel's name, tonnage, and horsepower                          | vessel's name in 3" letters                                   | vessel's name, and number of persons allowed, all in at least 3" inch high letters and numbers |         |
| 4 | 3085 | B | The vertical distance between G and M of a MODU is used as a measure of _____.   | stability at all angles of inclination                                     | initial stability   | stability at angles less than the limit of positive stability | stability at angles less than the downflooding angle   |         |
| 4 | 3086 | D | Which barge in your tow would require a cargo information card to be carried in the pilothouse?  | A tank barge with a sign reading "No Visitors, No Smoking, No Open Lights" | An open hopper barge carrying coal                              | A gas-free chlorine barge                                     | An empty (not gas-free) barge that last carried benzene  |         |
| 4 | 3088 | A | Using a sea anchor with the survival craft will _____.   | reduce your drift rate   | keep the survival craft from turning over                       | aid in recovering the survival craft                          | increase your visibility   |         |
| 4 | 3089 | C | What is NOT a responsibility of the tankerman in charge of loading an unmanned tank barge?   | Enforcement of smoking restrictions  | Restricting vessels from coming alongside the barge             | Insuring that a combustible gas indicator is aboard           | Protecting cargo hose with chafing gear  |         |

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| 4 | 3090 | D | Which statement is TRUE concerning spare charges for portable fire extinguishers on unmanned tank barges?   | Spare charges shall be carried for at least 50 percent of each size and variety required on board. | If the unit cannot be charged by the vessel's personnel, one spare unit shall be carried in lieu of spare charges. | Spare charges shall be stowed in watertight containers on deck. | Regulations concerning spare charges do not apply to unmanned barges. |  |
| 4 | 3091 | A | When will the float-free emergency position indicating radio beacon be activated after abandoning ship?   | Immediately after floating free  | After about one hour when the salt water activates the battery   | Only when keyed by the radar of another vessel                  | Only when daylight activates the photovoltaic cell                    |  |
| 4 | 3092 | B | Why is it necessary to extend ventilators of gasoline powered vessels to the bilges?  | To keep them dry, and thus easier to clean   | To remove fuel vapors which are heavier than air   | To provide adequate air to the engines                          | To cool the machinery areas   |  |
| 4 | 3094 | C | A type B-III CO2 extinguisher has a rated capacity of _____.  | 15 lbs   | 25 lbs   | 35 lbs  | 45 lbs  |  |
| 4 | 3095 | A | While retrieving the survival craft, the engine should be stopped _____.  | when the craft clears the water  | when the cable has been attached   | on approach to the platform                                     | at the embarkation  |  |
| 4 | 3096 | B | The shut off valve at the gasoline tank which can be operated from outside the tank space _____.  | controls the amount of gasoline to the engine  | shuts off the gasoline supply at the tank  | is used if the gasoline tank leaks                              | All of the above  |  |
| 4 | 3097 | B | When retrieving the survival craft, the winch operator should stop the winch and check _____.   | that all personnel are seated in the craft   | that the cable has not jumped any grooves on the drum  | which way the wind is blowing                                   | the hydraulic fuel level before lifting                               |  |
| 4 | 3098 | C | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 8 & 12 while using a single belt loader to arrive at a desired mean keel draft of 28'-03"? (use the Guidance Manual for Loading M.V. GRAND HAVEN). | 460 tons per hatch   | 520 tons per hatch   | 690 tons per hatch  | 730 tons per hatch  |  |
| 4 | 3099 | D | Which type of power may a towing vessel use to drive the cargo pumps of a tank barge?   | Only air   | Only steam   | Air or steam only   | Steam, air, or electricity  |  |
| 4 | 5811 | D | The unit used to measure anchor line tensions in the offshore drilling industry is the _____.   | long ton   | short ton  | metric ton  | Kip   |  |
| 4 | 5813 | A | An ideal mooring system would be _____.   | symmetrical and in equilibrium   | asymmetrical and in flux   | distorted and in equilibrium                                    | concentric and in flux  |  |
| 4 | 5814 | B | Your drafts are: FWD 18'-03", AFT 21'-09". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?   | 25.2 feet  | 25.6 feet  | 25.9 feet   | 26.3 feet   |  |
| 4 | 5815 | D | What device is used to measure the force exerted on the rig by a leg of the mooring system?   | Advanced stability computer  | Hole position indicator  | Fathometer  | Load cell   |  |

|   |      |   |   |  |   |   |  |  |
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| 4 | 5817 | A | The two main types of load cells used in mooring tension gauges are _____.  | distortion and compression   | hydraulic and mechanical  | magnetic and applied torque   | frictionless and hydraulic   |  |
| 4 | 5821 | A | Why should you preload a mooring system above your precalculated operating mooring tensions?  | This serves as a benchmark for increasing tensions in rough weather. | This allows you to determine existing bottom conditions.  | This insures that the anchor cable is stretched out in a straight line.           | This tests all the components of your mooring equipment.   |  |
| 4 | 5823 | C | Your semisubmersible drilling unit is moored on station and is experiencing winds from the north. What will be the effect if you increase the length of the anchor chains you have deployed to the north? | It will increase your draft.   | It will increase your operating tensions.   | It will increase the holding power of those chains.                               | It will significantly reduce your stability.   |  |
| 4 | 5824 | B | The vertical distance between G and M is used as a measure of _____.  | stability at all angles of inclination                               | initial stability   | stability at angles less than the limit of positive stability                     | stability at angles less than the downflooding angle   |  |
| 4 | 5825 | C | The tension on an anchor cable increases so that the angle of the catenary to the seabed at the anchor reaches 10 degrees. How will this affect the anchor in sandy soil?                                 | It will have no effect.  | It will increase the holding power.   | It will reduce the holding power.   | It will cause the anchor to snag.  |  |
| 4 | 5827 | D | When a MODU is afloat in equilibrium, the horizontal component of mooring line tensions should equal _____.   | drilling forces  | weight forces   | buoyancy forces   | environmental forces   |  |
| 4 | 5835 | B | The initial tension set in the mooring system of a MODU establishes the _____.  | maximum water depth at which drilling operations can be conducted    | distance the unit can be offset from the wellbore before the restoring forces oppose the environmental forces | maximum time it will take to disconnect the riser package in the event of a storm | minimum amount of ballast needed to keep the vessel at operating draft during normal drilling operations |  |
| 4 | 5837 | D | What could cause a significant difference between actual chain tension and the tension measured by the tensiometer?   | The type of anchor and mooring line being used                       | The type of bottom in which the MODU is anchored  | A significant difference between air and water temperature                        | The chain contacting a chock or fairlead between the tensiometer and the lower swivel fairlead           |  |
| 4 | 5845 | C | Yawing can be described as _____.   | jumping on the tow line as the rig pitches                           | jumping on the tow line as the rig slams into waves   | veering from side to side on the end of the tow line                              | corkscrew motion due to wave action  |  |
| 4 | 5855 | A | A mat-type drilling unit tows more slowly than a jack-up unit due to _____.   | the drag of the mat  | its deeper draft  | its tubular legs  | the design of the bow  |  |
| 4 | 5857 | A | In towing it is desirable for the tug and the MODU to ride wave crests simultaneously because _____.  | shock loading on the tow line is reduced                             | towing speed is improved  | the MODU is more visible from the tug   | the catenary of the tow line is reduced  |  |

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| 4 | 5858 | D | Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the MT1.                                   | 1050 foot-tons                                       | 1065 foot-tons  | 1090 foot-tons   | 1130 foot-tons                                  |         |
| 4 | 5863 | D | If a MODU under tow starts jumping on its tow line, the most appropriate action to alleviate the condition is to _____.                                    | change course  | slow down   | heave to   | adjust tow line length                          |         |
| 4 | 5864 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.      | Available GM 4.1 ft                                  | Available GM 4.3 ft                                     | Available GM 4.7 ft  | Available GM 5.1 ft                             | ST-0186 |
| 4 | 5871 | B | The DEEP DRILLER is moored in 600 feet of water. The tension on anchor line #8 is 190 kips. What is the vertical component of chain tension for that line? | 53.6 long tons                                       | 55.3 long tons  | 84.8 long tons   | 442.4 long tons                                 |         |
| 4 | 5883 | D | In selecting a tug for moving a MODU, consideration should be given to its _____.  | indicated horsepower, bollard pull, and displacement | indicated horsepower, maneuverability, and displacement | indicated horsepower, bollard pull, and maneuverability            | bollard pull, displacement, and maneuverability |         |
| 4 | 5893 | A | The effect of ocean currents is usually more evident on a rig being towed than on a tug navigating independently because the _____.                        | speed of the tow is less                             | tow line catches the current                            | current causes yawing  | current will offset the rig                     |         |
| 4 | 5897 | D | The type of shackle used in making up tow lines to a MODU should be _____.   | screw pin  | chain   | anchor   | safety  |         |
| 4 | 5898 | D | What is the meaning of the signal VJ 8 when sent by the International Code of Signals?   | Winds of force 8 are expected.                       | Low clouds cover 8 octants of the sky.                  | You should stop hauling your warps.                                | A gale is expected from the north.              |         |
| 4 | 5901 | A | With a rig in tow, there is immediate danger to the tug in the event of the _____.   | tug losing power                                     | tow line parting  | bridle twisting  | rig broaching                                   |         |
| 4 | 5902 | C | The most likely location for a liquid fire to occur on a tanker would be _____.  | the midships house                                   | at the vent header                                      | in the pumproom  | at the main deck                                |         |
| 4 | 5903 | C | The signal to man emergency stations on MODU's is _____.   | 30 seconds on/30 seconds off alternating signal      | continuous ringing of general alarm signal              | intermittent ringing of general alarm for not less than 10 seconds | announced over PA system                        |         |
| 4 | 7105 | C | Combustible gas indicators measure the presence of combustible gas as a percentage of the _____.   | flash point  | upper explosive limit                                   | lower explosive limit  | fire point                                      |         |
| 4 | 7113 | B | Fire extinguishers used on MODU's are numbered by size I through V, with I being _____.  | used for electrical fires only                       | the smallest  | the most accessible  | the most effective                              |         |

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| 4 | 7121 | C | CO2 cylinders equipped with pressure actuated discharge heads will discharge automatically when _____.   | the discharge valve is open  | the control box glass is broken                             | pressure from the control cylinders is detected               | the control cylinders have been completely discharged |  |
| 4 | 7127 | B | Spaces protected by a fixed CO2 system must be equipped with an alarm which sounds _____.  | for the first 20 seconds CO2 is being released into the space                    | for at least 20 seconds prior to release of CO2             | during the entire period that CO2 is being released           | if all doors and ventilation are not secured          |  |
| 4 | 7128 | A | Some spaces protected by fixed carbon dioxide systems are required to have audible alarms that begin sounding prior to the discharge of CO2. This time delay must be at least _____. | 20 seconds   | 40 seconds  | one minute  | two minutes   |  |
| 4 | 7129 | B | Some spaces protected by fixed carbon dioxide systems are required to have audible alarms that begin sounding prior to the discharge of CO2. This time delay must be at least _____. | 15 seconds   | 20 seconds  | 45 seconds  | 90 seconds  |  |
| 4 | 7131 | C | A safety outlet is provided on the CO2 discharge piping to prevent _____.  | over pressurization of the space being flooded                                   | rupture of cylinder due to temperature increase             | over pressurization of the CO2 discharge piping               | flooding of a space where personnel are present       |  |
| 4 | 7135 | C | What is the best instrument for establishing a safe working area before welding in a confined space?   | An oxygen indicator  | A combustible gas indicator                                 | A combination combustible gas and oxygen indicator            | A flame safety lamp                                   |  |
| 4 | 7143 | C | Actuating the CO2 fixed system causes the shutdown of the _____.   | fuel supply  | exhaust ventilation   | supply and exhaust ventilation                                | mechanical and natural ventilation                    |  |
| 4 | 7147 | A | What should you do if you have transmitted a distress call a number of times on channel 16 and have received no reply?   | Repeat the message using any other channel on which you might attract attention. | Key the microphone several times before transmitting again. | Turn up the volume on the receiver before transmitting again. | Report the problem to the head electrician.           |  |
| 4 | 7307 | A | All VHF marine band radios operate in the simplex mode, which means that _____.  | only one person may talk at a time   | only two persons may talk at the same time                  | the radio only transmits                                      | the radio only receives                               |  |
| 4 | 7311 | D | What is the calling and distress frequency on a single side band (SSB) marine radiotelephone?  | 1492 kHz   | 1892 kHz  | 2082 kHz  | 2182 kHz  |  |
| 4 | 7317 | B | When sending and receiving messages on the marine radio, confusion over unusual words can be avoided by using the _____.   | delimiter switch   | standard phonetic alphabet                                  | low power switch  | high power switch                                     |  |



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| 4 | 7318 | A | A cabinet or space containing the controls or valves for the fixed firefighting system must be _____.   | posted with instructions on the operation of the system | ventilated and equipped with explosion-proof switches  | painted with red and black diagonal stripes         | equipped with a battery powered source of emergency lighting |  |
| 4 | 7321 | A | The reception of weak radio signals may be improved by "opening up" the squelch control. What is the normal setting of the squelch control?                                     | Just past the point where background noise is cut off   | Completely closed with the volume at the highest level | Completely open with the volume at the lowest level | None of the above  |  |
| 4 | 7323 | C | Whenever your marine radio is on, FCC Rules require you to monitor _____.   | a commercial ship-to-ship channel                       | the last frequency that was used                       | the distress and calling frequency                  | the radio only if expecting a call                           |  |
| 4 | 7325 | C | One method of reducing the length of radio transmissions without distorting the meaning of your words is by using _____.  | slang   | secret codes   | procedure words                                     | analogies  |  |
| 4 | 7331 | B | Routine radio communications should be no more than _____.  | one minute  | three minutes  | five minutes  | eight minutes  |  |
| 4 | 7333 | B | You have just tried calling another vessel on the VHF and they have not replied. How long should you wait before calling that station again?                                    | One minute  | Two minutes  | Five minutes  | Seven minutes  |  |
| 4 | 7335 | A | When making VHF radio calls to nearby stations, what level of transmitting power should you use?  | Low power   | Medium power   | High power  | Extra high power   |  |
| 4 | 7337 | C | If you log a distress message, it must include the _____.   | sea state   | names of witnesses                                     | time of its occurrence                              | wind direction and velocity                                  |  |
| 4 | 7341 | D | If you know that the vessel you are about to call on the VHF radio maintains a radio watch on both the working and the calling frequencies, which frequency should you call on? | Calling frequency                                       | Distress frequency                                     | Urgency frequency                                   | Working frequency  |  |
| 4 | 7343 | D | What is maximum power allowed by the FCC for VHF-FM radio transmissions?  | One watt  | Five watts   | 15 watts  | 25 watts   |  |
| 4 | 7345 | A | What is the average range of vessel-to-vessel VHF-FM radio communications?  | 15 to 20 miles  | 60 to 90 miles   | 90 to 120 miles                                     | 120 to 150 miles   |  |
| 4 | 7351 | B | The range of a SSB transmission is MOST affected by _____.  | atmospheric noise and radiated power                    | the frequency band selected and time of day or night   | interference and position of the moon               | radiated power and nearness to shore                         |  |
| 4 | 7353 | A | The height of a VHF radio antenna is more important than the power output wattage of the radio because _____.   | VHF communications are basically "line of sight"        | the air is more dense the higher you go                | salt water is a poor conductor of sound             | sea water absorbs the radiated energy                        |  |

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| 4 | 7355 | D | When do you use your FCC call sign when transmitting on channel 16?   | Only at the beginning of a transmission                  | Only in an emergency           | Only if asked by the U.S. Coast Guard   | Always at the beginning and ending of a transmission         |  |
| 4 | 8845 | B | A semisubmersible at a draft of 19 feet 9 inches arrives on location planning to deploy eight mooring lines. Each anchor weighs 15 long tons and each mooring line consists of 3,000 feet of 3-inch chain (89.6 lbs/ft). If no ballast corrections are made, what is the expected draft if the average TPI is 60? | 17 feet 9 inches   | 18 feet 3 inches               | 18 feet 9 inches                        | 21 feet 3 inches   |  |
| 4 | 8847 | B | A semisubmersible 300 feet long and an LCF of 0 (amidships) is in transit with hulls awash and an MT1" of 87.67 foot-tons. Work on the BOP (weight 263 long tons) requires that it be moved aft 12 feet. What is the resulting trim change?   | 1.5 feet   | 3.0 feet                       | 6.0 feet                                | 7.3 feet   |  |
| 4 | 8848 | B | Enclosed lifeboats which have been afloat over a long period of time require _____.   | frequent opening of hatches to permit entry of fresh air | regular checks of bilge levels | use of ear plugs to dampen engine noise | frequent flushing of the water spray system with fresh water |  |
| 4 | 8849 | D | What is the minimum number of bolts required in a permanently bolted flange oil hose coupling?  | 3  | 4                              | 6                                       | A bolt must be used in every hole.                           |  |
| 4 | 8851 | D | While underway in a field move with the lower hulls awash, a semisubmersible has an allowable KG of 63.69 feet; KMT is 65.12 and KML is 64.92. The KGT is 56.13 and KGL is 55.89. What is the GML?  | 1.43 feet  | 7.56 feet                      | 7.80 feet                               | 9.03 feet  |  |
| 4 | 8853 | B | While underway in a field move with the lower hulls awash, a semisubmersible has a maximum allowable KG of 63.69 feet; KMT is 65.12 and KML is 64.92. The KGT is 56.13 and KGL is 55.89. What is the margin on the maximum allowable KG?  | 1.43 feet  | 7.56 feet                      | 7.80 feet                               | 8.99 feet  |  |
| 4 | 8855 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). If weather conditions make it necessary to ballast down to survival, how much ballast would be required?  | 3,998.3 long tons  | 4,086.5 long tons              | 4,188.0 long tons                       | 5,087.0 long tons  |  |

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|---|------|---|--|------------------|------------------|------------------|------------------|--|
| 4 | 8861 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that upon arrival at 45 feet, port and starboard ballast tanks 2 and 9 will be full and that port and starboard ballast tanks 1, 3, and 8 will be slack. What would be the new value of the total longitudinal free surface moments (FSML)?                  | 69,658 foot-tons | 56,244 foot-tons | 42,830 foot-tons | 30,168 foot-tons |  |
| 4 | 8863 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet, and upon arrival at 45 feet, port and starboard ballast tanks 1, 3, and 8 are slack. What is the new KGL?   | 51.65 feet       | 52.67 feet       | 55.16 feet       | 62.24 feet       |  |
| 4 | 8865 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Although winds are less than 70 knots, excessive motion requires ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet, and upon arrival at 45 feet, port and starboard ballast tanks 1, 3, and 8 are slack. What will be the new margin on the maximum allowable KG? | 7.08 feet        | 8.12 feet        | 8.44 feet        | 8.96 feet        |  |
| 4 | 8867 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. How much ballast is required to ballast to 32 feet?   | 2,094 long tons  | 2,194 long tons  | 2,294 long tons  | 3,294 long tons  |  |
| 4 | 8871 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, what is the new KG?   | 54.76 feet       | 55.76 feet       | 57.22 feet       | 57.76 feet       |  |

|   |      |   |  |                   |                   |                  |                  |  |
|---|------|---|--|-------------------|-------------------|------------------|------------------|--|
| 4 | 8873 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions make it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new KGL?                               | 54.76 feet        | 55.76 feet        | 57.22 feet       | 61.16 feet       |  |
| 4 | 8875 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Excessive motion makes it necessary to ballast down to survival draft. It is decided to check the stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new margin on the maximum allowable KG? | 6.23 feet         | 5.11 feet         | 4.86 feet        | 4.06 feet        |  |
| 4 | 8877 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Severe motion makes it necessary to ballast down to survival draft. It is decided to check stability at the intermediate draft of 32 feet. If the added ballast has an average VCG of 9.03 feet, and the sum of free surface moments is 56,244 foot-tons, what is the new GML?                                       | 6.23 feet         | 5.11 feet         | 4.86 feet        | 4.06 feet        |  |
| 4 | 8881 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). How much additional deck load can be placed aboard without exceeding the deck load limit?  | 1,335.6 long tons | 1,086.6 long tons | 585.4 long tons  | 435.6 long tons  |  |
| 4 | 8883 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Additional deck load may be placed aboard. If the maximum permissible deck load were placed in the pipe racks at a VCG of 130 feet, the KG increases _____.  | 1.43 feet         | 1.89 feet         | 2.23 feet        | 2.43 feet        |  |
| 4 | 8885 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). If the maximum permissible deck load were placed aboard at a VCG of 130 feet, what would be the new draft?   | 19 feet 9 inches  | 20 feet 4 inches  | 20 feet 8 inches | 21 feet 4 inches |  |

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|---|------|---|--|--|--|--|--|--|
| 4 | 8887 | C | In observing rig motion while under tow, the period of roll is the time difference between _____.  | zero inclination to full inclination on one side   | full inclination on one side to full inclination on the other side                           | full inclination on one side to the next full inclination on the same side | zero inclination to the next zero inclination                                |  |
| 4 | 8891 | D | Which type of respiratory protection is preferable for repair/investigation personnel on a MODU in a hydrogen sulfide (H2S) environment?   | U.S. Navy Oxygen Breathing Apparatus (OBA)   | Emergency Escape Breathing Apparatus (EEBA)  | Demand Self-Contained Breathing Apparatus (SCBA)                           | Pressure-Demand Self-Contained Breathing Apparatus (SCBA)                    |  |
| 4 | 8893 | D | AMVER is a system which provides _____.  | satellite communications   | navigational information   | weather information  | position reporting service   |  |
| 4 | 8895 | A | The AMVER system for vessels in the Gulf of Mexico is administered by the _____.   | U.S. Coast Guard   | Minerals Management Service  | Department of Energy   | Corps of Engineers   |  |
| 4 | 8897 | B | The international body responsible for drafting the convention prohibiting marine pollution (MARPOL) is the _____.   | Maritime Advisory Council  | International Maritime Organization  | International Association of Shipping                                      | Association of Seafaring Nations   |  |
| 4 | 8901 | C | The Safety of Life at Sea Convention was developed by the _____.   | U.S. Coast Guard   | American Bureau of Shipping  | International Maritime Organization  | American Institute of Maritime Shipping                                      |  |
| 4 | 8903 | B | The most effective first aid treatment for chemical burns is to immediately _____.   | apply ointment to the burned area  | flood the affected area with water   | wrap the burn with sterile dressing  | apply an ice pack to the burned area   |  |
| 4 | 8905 | B | When it is necessary to remove a victim from a life threatening situation, the person giving first aid must _____.   | pull the victim by the feet  | avoid subjecting the victim to any unnecessary disturbance                                   | carry the victim to a location where injuries can be assessed              | place the victim on a stretcher before attempting removal                    |  |
| 4 | 1598 | A | On board a small passenger vessel connections to electric conductors MUST be _____.  | made within enclosures   | served and parceled  | installed only by a licensed marine electrician                            | Be inspected annually  |  |
| 4 | 1599 | A | All self-propelled vessels on an international voyage must be equipped with how many Emergency Position Indicating Radio beacons (EPIRB)?  | One approved Category 1 EPIRB  | Three approved Category 1 EPIRBs   | One approved Class B EPIRB   | Two approved Class B EPIRBs  |  |
| 4 | 1600 | D | You are berthed at a cargo facility where you have just completed discharging a dangerous cargo. You must complete topside repairs involving hot work before sailing. Which of the following statements is TRUE? | You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility. | The repair area must be inspected by a marine surveyor to ensure that it can be done safely. | Hot work repairs at such a facility are prohibited.                        | The Captain of the Port may give specific approval to make hot work repairs. |  |

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|---|------|---|---|--|---|---|--|--|
| 4 | 1601 | C | Channel 13 is primarily used for ship to ship communication. Channel 13 is also authorized for _____.   | coast to aircraft operational communications | aircraft to ship operational communications | lock & bridge communications              | aircraft to ship navigational communications |  |
| 4 | 1603 | C | During loading and discharging operations, in addition to when the cargo tanks have been properly filled, each inert gas system must be capable of maintaining a minimum gas pressure of _____. | 150 millimeters of water pressure            | 125 millimeters of water pressure           | 100 millimeters of water pressure         | 75 millimeters of water pressure             |  |
| 4 | 1605 | B | What entry would NOT be shown on the V line of an AMVER report?   | MD   | MT  | PA  | NURSE  |  |
| 4 | 1607 | C | A bilge suction line, in a fishing vessel with more than 16 individuals aboard, must have a strainer with an open area not less than how many times the open area of the suction line?          | one  | two   | three                                     | four   |  |
| 4 | 1608 | D | Cold water, in commercial fishing, means water where the monthly mean low water temperature is normally _____.  | 39°Fahrenheit or less                        | 44°Fahrenheit or less                       | 49°Fahrenheit or less                     | 59°Fahrenheit or less                        |  |
| 4 | 1609 | C | Line throwing equipment should NOT be operated _____.   | during a rain storm                          | near a lifeboat station                     | in an explosive atmosphere                | by other than licensed officers              |  |
| 4 | 1610 | A | An "ABC" dry chemical fire extinguisher would be LEAST effective against a fire in _____.   | a mattress                                   | spilled liquids such as oil or paint        | high voltage electrical gear              | a trash can                                  |  |
| 4 | 1611 | C | How should longitude 116°54.9'E be written when preparing an AMVER report?  | Q1169  | 116.9E                                      | 11655E                                    | 117E   |  |
| 4 | 1612 | B | Which action is routinely performed at the annual servicing and inspection of a dry-chemical cartridge-operated portable fire extinguisher?   | Test the pressure gauge for correct reading. | Weigh the cartridge.                        | Replace the dry chemical.                 | Pressure test the discharge hose.            |  |
| 4 | 1613 | A | Steering a motor lifeboat broadside to the sea could cause it to _____.   | capsize                                      | run smoother                                | run faster                                | sink   |  |
| 4 | 1614 | D | You may have to give artificial respiration after a/an _____.   | drowning                                     | electrocution                               | poisoning                                 | All of the above                             |  |
| 4 | 1615 | B | When administering artificial respiration, it is MOST important to _____.   | monitor blood pressure                       | clear airways                               | use the rhythmic pressure method          | know all approved methods                    |  |
| 4 | 1617 | B | When compared to low-expansion foam, a high-expansion foam will _____.  | be wetter                                    | be lighter                                  | be more heat resistant                    | not cling to vertical surfaces               |  |
| 4 | 1618 | B | Which characteristic of Halon is a disadvantage when it is used as a fire extinguishing medium?   | Leaves a residue                             | Cost, relative to other agents              | Breaks down while under prolonged storage | Conducts electricity                         |  |

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| 4 | 1619 | D | A conscious victim who has suffered a blow to the head has symptoms that indicate the possibility of concussion. If the patient feels no indication of neck or spine injury, recommended treatment would include _____. | turning the victim's head to the side to keep his airway open           | positioning the victim so the head is lower than the body  | giving the victim water if he is thirsty, but no food                                    | elevating the head and shoulders slightly with a pillow                                      |  |
| 4 | 1620 | C | One disadvantage of using regular dry chemical (sodium bicarbonate) in firefighting is that _____.  | it can break down under high heat and emit noxious fumes                | it will decompose under prolonged storage and lose its effectiveness   | fire has been known to flash back over the surface of an oil fire                        | it is ineffective in fighting fires in high-voltage electrical equipment                     |  |
| 4 | 1621 | B | Why is spare fire hose rolled for storage?  | Water in the hose is forced out the end in the rolling process.         | The threads on the male end are protected by the hose.   | Rolling provides maximum protection against entry of foreign objects into the couplings. | Rolling provides maximum protection to the outer covering of the hose.                       |  |
| 4 | 1622 | A | You are preparing to take another vessel in tow. Which signal indicates, "Hawser is made fast"?   | Firing of a green star signal   | Firing of a red star signal  | An orange smoke signal   | Three white star rockets at 1-minute intervals   |  |
| 4 | 1624 | D | A sail plan, including the vessel's itinerary, name, number, and persons aboard, should be filed with _____.  | the FAA   | the Coast Guard  | U.S. Customs   | a responsible person   |  |
| 4 | 1625 | D | A shipmate suffers a heart attack and stops breathing. You must _____.  | immediately give a stimulant, by force if necessary                     | make the victim comfortable in a bunk  | administer oxygen  | immediately start CPR  |  |
| 4 | 1627 | D | The canvas covering of fire hose is called the _____.   | casing  | outer hose   | line cover   | jacket   |  |
| 4 | 1628 | C | You are running before a rough sea and a strong wind. Your sailing vessel is yawing. If the wind should catch the mainsail on the reverse side you will _____.  | broach  | tack   | jibe   | go in irons  |  |
| 4 | 1629 | D | Which statement is TRUE about fire fighting foam?   | The air bubbles in foam act as an insulator in fighting a class C fire. | The effectiveness of foam in forming a blanket over a burning liquid increases as the temperature of the liquid increases. | Foam can be used to control gases escaping from compressed gas cylinders.                | Foam sets up a vapor barrier over a flammable liquid preventing flammable gases from rising. |  |

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| 4 | 1630 | C | A deck-stowed 40-foot container is giving off smoke, and one end is discolored from heat. The cargo is valuable and easily damaged by water. You want to extinguish the fire without further damage if possible. What action should you take?  | Connect a portable line from the ship's fixed system and discharge CO2 into the container. | Flood the container with water and disregard any cargo damage as the fire threatens the entire vessel. | Pierce the container and discharge 6 or more portable CO2's then add more CO2 hourly. | Cool the exterior of the container with water and close all vents; then keep it cooled until it can be off-loaded. |  |
| 4 | 1632 | C | When joining the female coupling of the fire hose to the male outlet of the hydrant, you should make sure that the _____.  | threads are lubricated   | nozzle is attached to the hose   | female coupling has a gasket  | hose is led out  |  |
| 4 | 1633 | B | The SS NORTHLAND is loaded to drafts: FWD 18'-07", AFT 19'-05". The KG is 33.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline). | 4.0°   | 7.1°   | 8.0°  | 9.5°   |  |
| 4 | 1634 | A | To prevent the spread of fire by convection you should _____.  | close all openings to the area   | shut off all electrical power  | remove combustibles from direct exposure  | cool the bulkhead around the fire  |  |
| 4 | 1635 | C | Which firefighting method is an example of an indirect attack on a fire?   | Bouncing a straight stream of water off the overhead to create spray effect                | Spraying foam on a bulkhead and letting it flow down and over a pool of burning oil                    | Flooding a paint locker with CO2 and sealing the compartment                          | Cooling adjacent bulkheads with water to prevent the spread of the fire by conduction                              |  |
| 4 | 1636 | C | How should latitude 54°18.9'N be written when preparing an AMVER report?   | 54.3N  | 0543N  | 5419N   | 54°N   |  |
| 4 | 1637 | D | Which is a disadvantage of Halon as a fire extinguishing medium?   | Conducts electricity   | Difficult to store   | Large volume necessary to be effective  | Ineffective in powdered metal fires  |  |
| 4 | 1639 | D | What entry would NOT be shown on the V line of an AMVER report?  | NONE   | NURSE  | MD  | DOCTOR   |  |
| 4 | 1640 | C | A Halon 1301 cylinder contains 100 pounds of liquid at 360 psi. It must be recharged when the weight drops below how many pounds of liquid?  | 90   | 92   | 95  | 98   |  |
| 4 | 1641 | A | The most serious effect of air trapped in a non-treated diesel engine jacket water cooling system is that it _____.  | causes corrosion   | reduces the ability of the system to cool the engine   | can form pockets which block the flow of coolant through the system                   | accelerates formation of metal plating   |  |
| 4 | 1642 | B | The Master or person in charge on a MODU shall insure that line throwing equipment is not operated _____.  | during a rain storm  | in an explosive atmosphere   | near a lifeboat station   | by other than senior rig personnel   |  |



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| 4 | 1643 | D | On a MODU with lifeboats stowed in two different locations, if all the lifeboats are lost in one location then the remaining lifeboats must accommodate what percentage of the persons permitted on board? | 50%                                       | 75%  | 90%   | 100%   |  |
| 4 | 1644 | D | Which topic is NOT required to be discussed at the pre-transfer conference?  | Identity of the product to be transferred | Details of transferring and receiving systems                  | Emergency shutdown procedures                               | Estimated time of finishing cargo                    |  |
| 4 | 1645 | B | On a MODU, each emergency generator must be tested at least once each _____.   | week                                      | month  | three months  | six months   |  |
| 4 | 1647 | C | Electrical wiring on all "T-Boats" must be _____.  | concealed to prevent mechanical damage    | concealed so the boat can be maintained more easily            | protected from the weather                                  | in an accessible place behind the ceiling            |  |
| 4 | 1649 | D | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.  | true wind velocity increases              | heeling moment decreases                                       | side slip decreases   | jib sheet must be hardened up                        |  |
| 4 | 1650 | A | When compared to low-expansion foam, a high-expansion foam will _____.   | be drier                                  | be heavier   | be more heat resistant                                      | not cling to vertical surfaces                       |  |
| 4 | 1652 | A | An inland oil barge must have equipment available to remove an on-deck oil spill of at least _____.  | one barrel                                | two barrels  | five barrels  | ten barrels  |  |
| 4 | 1653 | D | Before operating a non-oceangoing ship greater than 100 gross tons it must have a fixed piping system to discharge oily mixtures ashore. This system must include _____.                                   | approved oil-water separating equipment   | a fixed or portable containment system at the shore connection | a spare pump in case the main pump is inoperative           | at least one outlet accessible from the weather deck |  |
| 4 | 1654 | A | You are operating a ship greater than 400 gross tons. You are NOT permitted to carry oil or hazardous materials in a(n) _____.   | forepeak tank                             | after peak tank  | deep tank   | on-deck portable tank                                |  |
| 4 | 1655 | D | Which space(s) on your cargo vessel must have a fire detection system?   | Any compartment containing explosives     | Any compartment adjacent to one containing explosives          | Enclosed spaces which are "specially suitable for vehicles" | All of the above                                     |  |
| 4 | 1659 | B | You have berthed in a port area with other tank vessels. What signal is displayed by a vessel to indicate it is transferring flammable or combustible liquid cargo?  | A flashing yellow light                   | A red light visible all around the horizon                     | A green light visible all around the horizon                | An illuminated red and yellow caution flag           |  |

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| 4 | 1660 | A | If the meter needle of the oxygen indicator cannot be set to zero, what should be done?   | Replace the batteries.   | Check the sampling tube for blockage.   | Adjust the final reading by the amount the needle is displaced from zero. | Replace the platinum filament.   |         |
| 4 | 1661 | B | What is the maximum number of crew members that may be berthed in one room aboard your cargo vessel?  | Two  | Four  | Six   | Eight  |         |
| 4 | 1662 | A | By regulation, your cargo vessel must have _____.   | sufficient facilities for the crew to wash their clothes   | a wash basin in each room   | separate toilet facilities for engineers where their number exceeds six   | All of the above   |         |
| 4 | 1663 | A | Which tank barges require draft marks?  | All tank barges  | Tank barges over 50 GT  | Tank barges over 100 GT   | Notch barges over 1000 GT  |         |
| 4 | 1664 | B | The number of fire extinguishers required on an uninspected "motor vessel" is based on the vessel's _____.  | length   | gross tonnage   | draft   | crew list  |         |
| 4 | 1665 | A | Which statement about stowing spare hose is TRUE?   | Fold the hose so that the male coupling is about 4 feet from the female coupling, then roll it up. | Roll the hose starting at the female end.   | Roll the hose starting at the male end.                                   | Fold the hose into lengths about 6 feet long and then lash the folds together. |         |
| 4 | 1666 | A | The SS AMERICAN MARINER has the following drafts: FWD 10'-04", AFT 14'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.91 feet  | 2.09 feet   | 2.21 feet   | 2.48 feet  | ST-0045 |
| 4 | 1667 | C | A shipmate suffers a heart attack and stops breathing. You must _____.  | immediately give a stimulant, by force if necessary  | make the victim comfortable in a bunk   | immediately start CPR   | administer oxygen  |         |
| 4 | 1668 | D | What is the report identifier code for an AMVER deviation report?   | DV   | PR  | FR  | DR   |         |
| 4 | 1669 | D | You have abandoned ship and after two days in a liferaft you can see an aircraft near the horizon apparently carrying out a search pattern. You should _____.   | switch the EPIRB to the homing signal mode   | use the voice transmission capability of the EPIRB to guide the aircraft to your raft | turn on the strobe light on the top of the EPIRB                          | use visual distress signals in conjunction with the EPIRB                      |         |

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| 4 | 1672 | A | Which of the following would be considered downflooding on a fishing vessel as defined in regulation?  | Vessel heels until water enters a hatch.  | Vessel in collision floods through a damaged area above the waterline. | Vessel takes on water due to the hatches being left open in heavy rain. | Vessel takes on water by the propeller shaft due to failure of the stern gland. |  |
| 4 | 1673 | D | In commercial fishing, "cold water" means water where the monthly mean low water temperature is normally _____.  | 39°Fahrenheit or less   | 44°Fahrenheit or less  | 49°Fahrenheit or less   | 59°Fahrenheit or less   |  |
| 4 | 1674 | B | You are requisitioning stores for your tank vessel. What type of matches are permitted aboard?   | Phosphorous   | Safety   | Self-extinguishing  | Wooden  |  |
| 4 | 1675 | A | What entry would NOT be shown on the V line of an AMVER report?  | MED TECH  | MD   | NONE  | NURSE   |  |
| 4 | 1676 | D | Before you start an engine in a compartment, it's MOST important to _____.   | check the flame arrester  | check the fuel tank  | check the battery   | ventilate the bilges  |  |
| 4 | 1677 | C | After an engine is started you should _____.   | increase engine speed to insure adequate flow of oil to all parts of the engine | pay no attention unless there are unusual noises from the engine       | check operating pressures and temperatures, and check for leaks         | run the engine at idle until the temperature has increased                      |  |
| 4 | 1678 | D | Your vessel is 79 feet long with 20 people aboard. The coaming of a deck above the lowest weather deck (except an exposed forecastle deck) must be at least _____. | 6" high   | 12" high   | 24" high  | Not required  |  |
| 4 | 1679 | A | You are on a 92 foot fishing vessel with 35 individuals on board. Which one of the following items are you NOT required to have on board?                          | Gyro compass  | Magnetic compass   | Electronic position fixing device                                       | VHF radiotelephone  |  |
| 4 | 1680 | A | In an open lifeboat, the lifeboat compass is usually _____.  | placed in a fixed bracket when being used                                       | clamped to any position convenient for the coxswain to see it          | permanently mounted on the lifeboat's centerline                        | mounted in the center of the boat to eliminate deviation                        |  |
| 4 | 1681 | B | An LWT anchor often has difficulty tripping in _____.  | sand  | soft soil  | stiff clay  | heterogeneous soil  |  |

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| 4 | 1682 | B | Which radio call-in plan is the most prudent?  | There must be a designated responsible person who will be available to receive your call at anytime. | There must be specific instructions for the designated responsible person to follow if your call does not come in on schedule. | The designated responsible person must be instructed to call the Coast Guard search and rescue authorities immediately if your call does not come in on schedule. | The designated responsible person should be over 18 years of age. |  |
| 4 | 1683 | A | You are running before a strong wind in a sloop. The most dangerous thing to do is _____.  | jibe   | tack about   | reef the mainsail   | strike the jib  |  |
| 4 | 1684 | C | You are sailing before the wind in heavy weather. The failure of what will affect the vessel's safety most?  | The main halyard   | The jib sheet  | The helm  | The outhaul   |  |
| 4 | 1685 | C | A storm is forecast for the area where your vessel is moored. For its safety you should put _____.   | more slack in the mooring lines  | a strain on the mooring lines  | chafing gear on the mooring lines   | grease on the mooring lines                                       |  |
| 4 | 1686 | B | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2300 brake horsepower? | 2  | 3  | 4   | 5   |  |
| 4 | 1687 | B | The old sailors admonition "Beware the lee shore" warns of the danger due to _____.  | the wind blowing stronger at this location   | the ground swell making it difficult to tack off   | the current flowing directly on shore   | there being less wind in the lee of the shore                     |  |
| 4 | 1688 | A | Each commercial fishing vessel must have at least one immersion suit, exposure suit, or life preserver for each _____.                             | person aboard  | person working on deck   | crew member   | None of the above are correct.                                    |  |
| 4 | 1689 | C | You must pick up an individual who has fallen overboard from a sailboat. The final approach should be _____.                                       | upwind   | downwind   | on a close reach  | on a broad reach  |  |
| 4 | 1690 | A | The tops of the thwarts, side benches, and the footings of a lifeboat are painted which color?   | International orange   | Yellow   | White   | Red   |  |
| 4 | 1691 | C | When anchoring a small sailing vessel in rough weather, the best anchor line would be composed of _____.   | chain-wire   | chain-manila   | chain-nylon   | all chain   |  |

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| 4 | 1692 | A | You are preparing for what promises to be a rough ocean passage. Your 120-foot schooner carries a yard on the foremast, about 50 feet above the water. The yard weighs about 1000 pounds. If you take the yard down and stow it on deck for the trip, you will _____. | increase your vessel's GM  | decrease the metacentric height  | give the vessel a gentler roll  | increase the reserve buoyancy                    |  |
| 4 | 1693 | B | Every different type of sailing rig can be dangerous in certain circumstances. Which situation would most likely be dangerous?  | A gaff rig is dangerous in a calm wind and sea.  | A gaff rig is dangerous in a calm wind and large swell.                                      | A square rig, such as a ship rig, is dangerous to jibe.   | A tall, marconi, sloop rig is dangerous to tack. |  |
| 4 | 1694 | C | When repairing a torn sail at sea, you should _____.  | use perfectly aligned stitches in old sail cloth so as to get the strain properly aligned  | avoid using glued patches on old sail cloth  | be sure to orient the weave of the patch material, on large patches, in the same orientation as the sail cloth being repaired           | All of the above                                 |  |
| 4 | 1695 | A | In order to prevent galvanic corrosion, an aluminum boat must be insulated from the davits and gripes. Which of the following is acceptable as an insulator?  | Hard rubber  | Canvas   | Leather   | Sponge rubber                                    |  |
| 4 | 1696 | D | Which statement(s) is(are) TRUE?  | Polyester sailcloth, such as Dacron, is resistant to rot due to moisture but susceptible to UV degradation and should be kept covered as much as possible. | Canvas sailcloth is susceptible to rot due to moisture and should never be covered when wet. | Kevlar sail cloth is susceptible to weakening due to repeated folding and therefore should be draped loosely over the boom when stowed. | All of the above are true.                       |  |
| 4 | 1698 | B | To prevent a wooden hull from leaking you caulk it _____.   | after dry docking, while the hull is moist   | after dry docking, and the hull has dried  | afloat, where it is leaking   | afloat, in all accessible areas                  |  |
| 4 | 1699 | A | On small sailing vessels, the PRIMARY reason for using nylon in a combination chain-nylon anchor line is to _____.  | provide elasticity   | increase the strength  | reduce the cost   | reduce the weight                                |  |
| 4 | 1700 | B | How often must the impulse-projected line throwing appliance be test fired?   | Monthly  | At the Master's discretion   | Semiannually  | Annually   |  |
| 4 | 1701 | D | Movement of liquid in a tank when a vessel inclines causes an increase in _____.  | righting arm   | metacentric height   | height of the uncorrected KG  | natural rolling period                           |  |

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| 4 | 1702 | D | You are sailing at 8 knots on a beam reach in an apparent wind of 25 knots. Which statement is TRUE?  | The true wind is a little abaft your beam, at just under 25 knots.  | The apparent wind at the top of your mast will be slightly stronger than 25 knots and slightly farther forward than the wind at deck level. | If you turn to a close reach, the apparent wind will reduce in strength.   | None of the above are true.  |  |
| 4 | 1703 | A | With regard to aerodynamic lift, which statement is TRUE?   | If the thrust on a sail becomes excessive when close-hauled, it is likely to capsize the vessel rather than drive it. | When a sail is trimmed too tight, turbulence will break out on the windward side of the sail and cause a telltale there to flutter.         | A properly trimmed sail should have laminar flow on the windward side and turbulent flow on the leeward side.                  | Adjusting the angle of attack on a mainsail is accomplished by adjusting the outhaul or the vang, if fitted. |  |
| 4 | 1704 | B | Which statement is TRUE about sail shape?   | A high-aspect ratio marconi mainsail is more efficient for downwind sailing than a gaff-rigged mainsail.              | You should put more belly in a sail in light airs than in a strong breeze.  | You can reduce the belly in a boomed mainsail by easing the sheet.   | You can move the belly up in a mainsail by easing the luff tension.  |  |
| 4 | 1705 | D | How does an inert gas system on a tanker function to prevent explosions in cargo tanks?   | De-energizes the "charged mist" effect.   | Maintains a positive pressure on the vent header to cool the flammable vapors.  | Inert gas filters out the flammable vapors from the cargo tank spaces.   | Inert gas dilutes the flammable vapor and air concentrations to keep them below the lower explosive limit.   |  |
| 4 | 1706 | A | The major lift-producing part of a sail is the _____.   | leading edge  | trailing edge   | head   | foil   |  |
| 4 | 1707 | C | Your 40-foot auxiliary sailing vessel has just run aground on a bar. She has a relatively long, deep keel and the tide is falling. You have checked the bilges for damage and found none. Which is the most prudent action to take immediately? | Sheet the sails in flat to try to heel her over with the wind and sail off.   | Start the engine and run it hard in forward to try to drive over and off the bar.   | Strike the sails. Then run a kedge anchor out to one side, hook the main halyard to it, and heave the boat down onto one side. | Take soundings visually, by sounding pole, or lead line all around the vessel to locate the deepest water.   |  |
| 4 | 1708 | A | A chemical additive to LPG gives it a characteristic _____.   | odor  | color   | pressure   | density  |  |

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|---|------|---|---|---|--|--|--|--|
| 4 | 1709 | D | Why is gas-freeing rarely required for LPG cargo tanks?   | LPG is compatible with all cargos.                              | LPG's high oxygen content makes it nonvolatile.                    | Cargo tanks are inspected less frequently than on oil tankers.                     | The cargo tanks are used for one type of cargo only.                     |  |
| 4 | 1711 | A | Which precaution should be taken when testing a line throwing gun?  | Never remove the line from the rocket.                          | Fire it at an angle of approximately 90 degrees to the horizon.    | Wear asbestos gloves.  | All of the above   |  |
| 4 | 1712 | C | The gross weight of a fully charged CO2 cylinder is 80 lbs. When the bottle is empty it weighs 60 lbs. What is the minimum acceptable gross weight of the CO2 bottle before it should be recharged by the manufacturer? | 55 lbs  | 68 lbs   | 78 lbs   | 82 lbs   |  |
| 4 | 1713 | B | Line throwing equipment should NOT be operated _____.   | during a rain storm   | in an explosive atmosphere   | near a liferaft canister   | by other than licensed officers  |  |
| 4 | 1715 | B | After allowing for pressure losses, the pressure-volume capacity of an inert gas blower must be able to maintain a pressure, in any cargo tank, at a minimum of _____.  | 50 millimeters of water pressure                                | 100 millimeters of water pressure                                  | 150 millimeters of water pressure  | 200 millimeters of water pressure  |  |
| 4 | 1717 | C | An inert gas system on a tanker should be used to _____.  | prevent the generation of flammable or combustible gas in tanks | blow out cargo lines to prevent the build up of gas concentrations | dilute tank atmospheres to keep gas concentrations below the lower explosive limit | prevent fires in the pumproom by continually displacing flammable vapors |  |
| 4 | 1718 | B | You wish to communicate information that the swell in your area is 8-10 feet in height and from the northeast. This swell, as defined in the International Code of Signals, would be described as _____.                | rough   | moderate   | high   | confused   |  |
| 4 | 1720 | B | Your vessel has 3 lifeboats on each side. The aftermost boat on the starboard side is designated as boat number _____.  | 6   | 5  | 3  | 3 STARBOARD  |  |
| 4 | 1721 | D | An inert gas system is designed to reduce the possibility of tank explosions by _____.  | eliminating sparks and fire in the vicinity of cargo tanks      | removing all hydrocarbon gases from the cargo tanks                | blanketing cargo tanks with inert foam   | reducing the oxygen concentration below levels necessary for combustion  |  |
| 4 | 1722 | D | Where are remote readouts for oxygen concentration, pressure, and temperature of an inert gas system required to be located?  | Bridge and engine control consoles                              | Bridge and tank(s) being inerted                                   | Main deck and engine control consoles  | Cargo control and engine control consoles                                |  |

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|---|------|---|--|--|--|--|--|--|
| 4 | 1723 | C | The regulations that were passed to implement MARPOL 73/78 concerning oil pollution apply to a U.S. flag vessel that sails on which waters?                | Inland waters only   | Great Lakes only   | International waters   | All of the above   |  |
| 4 | 1725 | C | The most effective treatment for warming a crew member suffering from hypothermia is _____.  | running or jumping to increase circulation   | raising body temperature rapidly by placing hands and feet in hot water                | bundling the body in blankets to rewarm gradually                          | laying prone under heat lamps to rewarm rapidly                                |  |
| 4 | 1727 | B | Which method is used to supply inert gas from a flue gas system to the cargo tanks?  | Exhaust gas pressure from the stack  | High capacity fan  | Inert gas compressor   | Natural aspiration   |  |
| 4 | 1728 | B | What is the maximum percent of oxygen, by volume, allowed to be maintained in the cargo tanks prior to the commencement of crude oil tank washing?         | 5%   | 8%   | 10%  | 12%  |  |
| 4 | 1729 | A | The purpose of the deck seal in an inert gas system is to prevent _____.   | flammable vapors from entering machinery space   | flue gas escaping to atmosphere  | inert gas escaping to atmosphere   | air entering inert gas system  |  |
| 4 | 1730 | A | Each inert gas system must be designed to supply the cargo tanks with a gas, or mixture of gasses, that has an oxygen content by volume of _____.          | 5% or less   | 10% or less  | 15% or less  | 20% or less  |  |
| 4 | 1731 | A | Coast Guard Regulations permit which of the following systems to be used for fire prevention and the simultaneous inerting of cargo tanks on tank vessels? | An inert gas system  | The deck foam system   | The fire main system   | A fixed water spray system   |  |
| 4 | 1732 | D | The blowers of an inert gas generation system aboard a tanker, will be automatically secured if _____.   | normal water supply at the water seal is lost  | the temperature of the inert gas being delivered to the cargo tanks is more than 150°F | the cooling water supply to the scrubbers is lost                          | all of the above   |  |
| 4 | 1733 | A | The last 1.0 meter (3.3 feet) of vapor piping before the vessel vapor connection must be painted _____.  | red/yellow/red   | yellow/red/yellow  | international orange   | hi-visibility yellow   |  |
| 4 | 1734 | B | Which procedure should be followed when individuals are rescued in cold climates and suffer from hypothermia?  | Give them brandy or other alcoholic stimulation to promote a return to an acceptable body temperature. | Move them to a warm room to gradually raise their body temperature.                    | Keep them moving to stimulate circulation to raise their body temperature. | Warm them under an electric blanket to rapidly regain normal body temperature. |  |



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| 4 | 1735 | B | On a vapor control system, each vessel's vapor connection flange must have a _____.   | 6" reducer   | stud at least 1" long projecting from the flange face   | pressure gauge permanently attached to the flange  | hose saddle                     |  |
| 4 | 1736 | C | On a hydrocarbon flammability chart the line which extends from 0% to 21.8% oxygen, lying tangent to the flammability range, is called the _____.                                   | minimum oxygen content line  | critical displacement line  | critical dilution line   | upper threshold limit           |  |
| 4 | 1737 | D | In order for combustion to occur inside a piping system such as a vapor collection header in a marine emission control system, there must be _____.                                 | fuel   | oxygen  | ignition   | All of the above                |  |
| 4 | 1739 | B | The high-level overfill tank alarm, installed in the on-board monitoring system, must _____.  | operate in unison with other alarms  | be both audible and visual  | be the same as the overfill alarm  | sound when the tank is 90% full |  |
| 4 | 1740 | D | Tank vessel inerting refers to _____.   | the introduction of inert gas into a tank with the object of reducing the oxygen content to below 8% by volume | the introduction of inert gas into a gas free tank for the purpose of reducing the oxygen content to below 8% by volume | the introduction of inert gas into a cargo tank during cargo discharge to replace the volume of discharged cargo | All of the above                |  |
| 4 | 1741 | C | The maximum allowable oxygen content within the ship's cargo tanks, inert gas piping and the vapor recovery system is _____.  | 4%   | 5%  | 8%   | 10%                             |  |
| 4 | 1742 | D | What is the report identifier code for the first AMVER report sent at the start of a voyage?  | DP   | DR  | PR   | SP                              |  |
| 4 | 1743 | A | Introducing inert gas into a tank already inert with the object of further reducing the oxygen or hydrocarbon content to prevent combustion if air enters the tank is called _____. | purging  | gas freeing   | gas dispersion   | bonding                         |  |
| 4 | 1744 | D | Each hose used for transferring vapors must _____.  | have a design burst pressure of at least 25 psig   | be capable of withstanding at least 2.0 psi vacuum without collapsing or constricting                                   | be electrically continuous with a maximum resistance of ten thousand ohms  | All of the above                |  |
| 4 | 1745 | B | During loading, what is the minimum pressure required to be maintained by the inert gas system on cargo tanks?  | 2" water gauge   | 4" water gauge  | 20" water gauge  | 40" water gauge                 |  |

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| 4 | 1746 | B | An on-board monitoring system, using level sensors permanently installed in each vessel compartment, will have a high level alarm set at not more than _____.   | 90% of compartment capacity                                     | 95% of compartment capacity                                      | 97% of compartment capacity   | 99% of compartment capacity                    |  |
| 4 | 1748 | C | In an inert gas system, high pressure alarms are set in the main vapor collection line to cause an audible and visual alarm if the pressure reaches a certain level. What is the percentage of the lowest relief valve setting at which the alarm must sound? | 70%   | 80%  | 90%   | 95%  |  |
| 4 | 1750 | A | You are on an inerted tankship. A low pressure alarm must be set to cause an audible and visual alarm if the pressure in the tanks cannot be maintained at more than _____.   | 4" water gauge  | 90% of the vacuum relief setting                                 | 90% of the pressure drop through the scrubber                       | 90% of the vacuum assist fan                   |  |
| 4 | 1752 | A | Vapor recovery hoses must be tested yearly at what ratio to their maximum allowable working pressure?   | 1½ mawp   | 2 mawp   | 3 mawp  | 5 mawp   |  |
| 4 | 1754 | C | A large metallic device, mounted directly in the piping (usually located at the dock near the point where the vapor hose is attached), designed to prevent the passage of a rapidly moving flame through the piping is called a _____.                        | flame arrestor  | flame screen   | detonation arrestor   | detonation blocker                             |  |
| 4 | 1755 | B | When checking the oxygen content of the cargo tanks prior to loading cargoes requiring vapor recovery, the atmosphere must be sampled _____.  | one meter from the tank bottom and one meter below the tank top | one half the ullage of the tank and one meter below the tank top | one half the ullage of the tank and one meter above the tank bottom | at three meter intervals from the tank top     |  |
| 4 | 1756 | D | Under federal regulations, what minimum level of Blood Alcohol Content (BAC) constitutes a violation of the laws prohibiting Boating Under the Influence of Alcohol (BUI) on commercial vessels?  | .18%BAC   | .10%BAC  | .06%BAC   | .04%BAC  |  |
| 4 | 1757 | C | You are operating a liftboat. Before starting jacking operations you should _____.  | put the crane in a vertical position                            | close the wheelhouse doors                                       | have all personnel don life jackets                                 | put a watch in the engineroom                  |  |
| 4 | 1758 | D | A flooded leg on a liftboat would adversely affect the vessel's stability underway by _____.  | increasing the righting moment                                  | decreasing the vessel's displacement                             | increasing the reserve buoyancy                                     | shifting the CG (center of gravity) off center |  |
| 4 | 1759 | B | You are operating a liftboat. When beginning to jack down you should _____.   | jack down one leg at a time                                     | jack up first, then down   | undog doors to the engine room                                      | assemble all personnel on the main deck        |  |

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| 4 | 1760 | A | After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. Your next course of action should be to _____.                                       | jack the vessel back up to a safe height   | proceed on to your next destination since the list is unimportant | pump out all ballast to gain reserve buoyancy         | notify the U. S. Coast Guard                                 |  |
| 4 | 1761 | B | After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. The list caused by a flooded leg means your vessel has a(n) _____.                   | negative GM (metacentric height)   | decrease in the GZ (righting arm)                                 | increase in the waterplane and the metacentric height | less chance of deck edge immersion                           |  |
| 4 | 1762 | C | You are operating a liftboat. When jacking down and free of the bottom you should _____.  | raise one leg at a time  | not be concerned about any list                                   | raise all legs simultaneously                         | have the crane standing upright                              |  |
| 4 | 1763 | C | You are operating a liftboat. When jacking down and a leg becomes stuck on the bottom, you should _____.  | raise the free legs all the way  | use the engines to rotate about the leg that is stuck             | jack the barge down part way to pull the leg free     | submerge the barge completely to give added pull             |  |
| 4 | 1764 | A | After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. Raising the flooded leg further would adversely affect the boats stability by _____. | raising the KG and increasing the draft which may put you in an unsafe operating condition | increasing GM and causing a fast roll                             | increasing the righting arm on the high side          | causing the vessel to yaw when underway                      |  |
| 4 | 1765 | D | After jacking down your liftboat you have an unexpected list. You find that the only cause of this list must be a flooded leg. To keep adequate stability you should _____.   | get underway with the flooded leg ONLY half raised to reduce KG                            | proceed with all legs half raised to lower KG                     | pump out all ballast to increase reserve buoyancy     | jack back up and ballast the vessel's high side as necessary |  |
| 4 | 1766 | C | You are operating a liftboat. In preparation for jacking you should _____.  | make sure walkway is hanging over the bow  | make sure that all boats alongside are securely fast              | check that all equipment on deck is secured           | have all personnel remain in their quarters                  |  |
| 4 | 1767 | C | The explosive range of Diesel Oil mixed with air is _____.  | 0% to 1% by volume   | 0.8% to 5.3% by volume  | 1.3% to 6.0% by volume                                | 6.3% to 12.1% by volume                                      |  |
| 4 | 1768 | A | The flammable limit of methyl ethyl ketone is from _____.   | 1.8% to 11.5%  | 6.6% to 12.1%   | 9.6% to 15.1%   | 12.2% to 18.1%   |  |
| 4 | 1770 | C | On a survival craft VHF radio precautions shall be taken to prevent the inadvertent selection of which channel _____.   | 6  | 8   | 16  | 22   |  |
| 4 | 1771 | B | The Sailing Plan, required by vessels participating in AMVER, should be sent _____.   | 24 hours prior to departure  | within a few hours before or after departure                      | 24 hours after departure                              | after the first position report                              |  |

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| 4 | 1772 | D | The definition of "partially protected waters", as used in the Regulations does not include _____.  | harbors, lakes and similar waters determined by the OCMI to be protected waters | waters within 20 nautical miles from the mouth of a harbor of safe refuge | the Great Lakes during the summer season  | sheltered waters presenting no special hazard  |  |
| 4 | 1773 | B | What must Inland vessels of 100 GT and over be fitted with for oily mixtures?   | A fixed system to discharge the slops overboard                                 | A fixed system to discharge oily mixtures to a reception facility         | A portable system to discharge the slops overboard  | A portable system to discharge oily mixtures to a reception facility   |  |
| 4 | 1774 | C | You are preparing to contain an oil spill. You must first receive approval from the Federal On-Scene Coordinator (OSC) prior to _____.  | employing a boom  | using suction equipment   | applying chemical agents  | deploying skimmers   |  |
| 4 | 1775 | B | You are inspecting the nonmetallic oil transfer hoses on the vessel you operate. The maximum allowable pressure of the hose is 70 psi. Your inspection confirms the hose did not burst, bulge, leak or abnormally distort under the required static liquid pressure of _____. | 70 psi  | 105 psi   | 140 psi   | 210 psi  |  |
| 4 | 1776 | D | Which type of vessel shall be required to have an emergency towing arrangement fitted at both ends?   | A 30,000 dwt ton oil barge  | An 18,000 dwt ton tanker constructed in 1998                              | A 5,000 dwt ton coastal tanker  | A 22,000 dwt ton tanker operated after Jan. 1, 1999  |  |
| 4 | 1777 | B | The transfer procedures required to be followed on tankships shall contain _____.   | a list of each port of discharge  | a line diagram of the vessel's transfer piping                            | a current crew list   | the duties by name of each person in charge required for each transfer operation   |  |
| 4 | 1778 | D | The Sailing Plan, required by vessels participating in AMVER, should be sent _____.   | after the first position report   | 24 hours prior to departure   | 24 hours after departure  | within a few hours before or after departure   |  |
| 4 | 1779 | B | The Sailing Plan, required by vessels participating in AMVER, should be sent _____.   | after the first position report   | within a few hours before or after departure                              | 24 hours prior to departure   | 24 hours after departure   |  |
| 4 | 1780 | B | How often must a compulsory vessel's GMDSS radio station be inspected?  | Annually, by the U.S. Coast Guard   | Annually, by the FCC or designated authority                              | Annually, by the FCC, and every six months if the vessel sails outside of the Sea Areas A1 and A2 | The FCC's annual inspection may be waived if, and only if, monthly inspections are performed by the vessel's onboard GMDSS Radio Maintainer. |  |

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| 4 | 1781 | D | Which frequencies and modes are allocated for distress alerting in GMDSS?  | 406 MHz via EPIRB   | 1626.5-1645.5 MHz via INMARSAT  | Channel 70 DSC plus six (6) MF/HF DSC frequencies  | All of the above  |  |
| 4 | 1782 | D | Which channel has been designated for on-scene communications in GMDSS?    | 24  | 2182  | 70   | 16 and 2174.5   |  |
| 4 | 1783 | C | Which statement concerning GMDSS maintenance requirements is FALSE?        | Compulsory vessels sailing in Sea Areas A1 and A2 must provide any one of the three maintenance options which are duplication of equipment, shore-based or at-sea maintenance capability.                                       | Compulsory vessels sailing in Sea Areas A3 and A4 must provide any two of the three maintenance options which are duplication of equipment, shore-based or at-sea maintenance capability. | If shore-based maintenance is used, maintenance services do not have to be completed or performance verified unless the vessel will be sailing to a non-US port. | Equipment warranties do not satisfy GMDSS maintenance requirements.   |  |
| 4 | 1784 | A | Which statement concerning GMDSS distress alerts is TRUE?                  | Information contained in a distress alert includes the name and position of the distressed vessel, and may include additional information such as the nature of the situation and what kind of assistance that may be required. | Distress alerts may be used to alert other vessels, including those in port, of existing navigational hazards.  | Distress alerts may be used to alert other vessels, including those in port, of existing weather warnings.   | A vessel in the vicinity of a distress situation may leave the area without notifying the RCC that is overseeing the operation. |  |
| 4 | 1785 | D | What is a GMDSS functional or carriage requirement for compulsory vessels? | A compulsory vessel must carry at least two (2) licensed GMDSS operators  | A compulsory vessel must satisfy certain equipment carriage requirements that are determined by where the vessel sails.   | A compulsory vessel must be able to transmit and respond to Distress alerts.   | All of the above  |  |

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| 4 | 1786 | B | Which statement concerning reserve sources of energy for GMDSS is FALSE?  | While the ship is at sea, there must be available at all times a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source of energy. | Both the VHF and MF/HF installations must be simultaneously supplied.                    | A means of ensuring a continuous supply of electrical power must be provided to all GMDSS equipment that could be affected by an interruption in power. | If a uninterrupted power supply or equivalent is used to supply power to the ship's GPS receiver or other source of positional information, a means must be provided to ensure the continuous supply of the information in the event of a failure to the ship's main or emergency source of power. |
| 4 | 1787 | C | Which GMDSS control selection may result in limited receiving range?  | Setting the squelch control to its minimum level   | The power switch is set to the "high" output position resulting in receiver over loading | Setting the squelch control to its maximum level  | Setting the channel selection switch midway between channels 6 and 16  |
| 4 | 1788 | C | Which channel is designated as the VHF follow-on communications channel and is required in all portable survival craft equipment? | Channel 6  | Channel 13   | Channel 16  | Channel 70   |
| 4 | 1789 | A | How long must GMDSS Radio Logs be retained onboard the ship in original form?   | 30 days  | 3 months   | 6 months  | 1 year   |
| 4 | 1790 | D | How long must GMDSS Radio Logs be retained by the licensee when they relate to a distress situation or disaster?                  | 6 months   | 1 year   | 2 years   | 3 years  |
| 4 | 1791 | B | Where is the GMDSS Radio Logbook kept aboard ship?  | Attached to the Deck Logbook   | At the principal radio operating location  | In the Chief Mate's office  | In the Master's office   |

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| 4 | 1792 | B | For GMDSS, which statement concerning a compulsory vessel is FALSE?  | A conditional or partial exemption may be granted, in exceptional circumstances, for a single voyage outside the sea area for which the vessel is equipped. | Once a compulsory vessel's GMDSS station has been fitted and inspected, the station must be inspected only once every five years.                          | All passenger vessels regardless of size and all cargo vessels that are 300 Gross Tons or larger must comply.                                     | Compulsory vessels must carry at least two licensed GMDSS Radio Operators for Distress and Safety radio-communications purpose..  |
| 4 | 1793 | C | What is the minimum permit or license requirement of a GMDSS Radio Maintainer?   | Holding the Marine Radio Operator Permit is a pre-requisite before the GMDSS Maintainer Endorsement can be obtained   | Holding a valid GMDSS Radio Operator license is sufficient   | Holding the GMDSS Radio Maintainer license is sufficient  | Holding the GMDSS Radio Operator license for at least one year is a prerequisite to holding the GMDSS Radio Maintainer license  |
| 4 | 1794 | C | Which statement concerning GMDSS Radio Operator requirements is FALSE?   | Each compulsory vessel must carry at least two licensed GMDSS Radio Operators at all times while at sea.  | Each compulsory vessel must carry at least two licensed Radio Operators at all times while at sea and may elect to carry a GMDSS Radio Maintainer as well. | Communications involving safety of life at sea do not have to be logged as long as the compulsory vessel was not involved in such communications. | While at sea, adjustments to, and the maintaining of, GMDSS equipment may be performed by the GMDSS Radio operator as long as the work is supervised by an onboard licensed GMDSS Radio Maintainer. |
| 4 | 1795 | D | Where can GMDSS regulations pertaining specifically to U.S.-flag vessels be found?   | These are located in CCIR #476.   | These are located in FCC Part 83.  | These are published only by the U.S. Coast Guard.   | These are located in 47 CFR Part 80.  |
| 4 | 1798 | B | The combined fan discharge rate in an inert gas system is related to the _____.  | shoreside loading rate  | cargo pump discharge rate  | boiler forced draft fan rate  | size of the largest cargo tank  |
| 4 | 1799 | B | Each inert gas system gas main must have an automatic shut down valve at the outlet of the gas production plant. This valve must close automatically upon _____. | cargo pump failure  | blower failure   | deck seal low water level   | low inert gas temperature   |
| 4 | 1800 | B | Which U.S. agency issues a Certificate of Financial Responsibility?  | Environmental Protection Agency   | Coast Guard  | Corps of Engineers  | Maritime Administration   |

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| 4 | 1801 | B | Each ship having an inert gas system must have a portable instrument to measure concentrations of hydrocarbon vapor in inert atmospheres and also to measure _____.  | nitrogen             | oxygen   | carbon dioxide  | water vapor                                       |
| 4 | 1802 | C | The component in an inert gas system used for cleaning the gas of solid and sulfur combustion products, while simultaneously cooling the inert gas, is called the _____.   | filter               | cooler   | scrubber  | purifier  |
| 4 | 1803 | A | On offshore drilling units when two means of escape are provided from a space above the main deck, one means of escape must be required for rapid escape to _____.   | a weather deck       | the main deck  | the control house   | the escape capsules                               |
| 4 | 1804 | A | Your vessel displaces 869 tons and measures 136'L x 33'B. You ship a large wave on the after deck which measures 52'L x 33'B. The weight of the water is estimated at 52.8 tons. What is the reduction in GM due to free surface before the water drains overboard?  | 4.83 feet            | 5.12 feet  | 5.46 feet   | 5.85 feet   |
| 4 | 1805 | A | A sloop is a sailing vessel with _____.  | one mast             | two masts: with the mizzen stepped abaft the rudder post | two masts: with the mizzen stepped forward of the rudder post | two masts: a foremast and a mainmast              |
| 4 | 1806 | A | Your vessel displaces 562 tons and measures 121'L x 29'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 46'L x 29'B and the weight of the water is 41 tons? | 4.43 feet            | 4.61 feet  | 4.86 feet   | 5.12 feet   |
| 4 | 1807 | B | Which is standing rigging?   | Halyards             | Stays  | Sheets  | Downhauls   |
| 4 | 1808 | A | Which of the listed functions is the purpose of a gas scrubber in an inert gas generation system?  | Cools the inert gas. | Maintains the oxygen content at 5% by volume.            | Bleeds off static electricity in the inert gas.               | Maintains flow to the water seal on the gas main. |



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| 4 | 1809 | C | For GMDSS, which statement concerning compulsory vessels is TRUE?  | Vessels over 500 gross tons must carry at least three licensed GMDSS Radio Operators. | Passenger vessels between 300-500 gross tons need to carry only one licensed GMDSS Radio Operator, but passenger vessels larger than 500 must carry two licensed Operators. | Vessels larger than 500 gross tons must carry certain additional GMDSS equipment than what a vessel between 300-500 gross tons must carry. | Vessels between 300-500 gross tons need to carry no more than one EPIRB, SART and survival craft transceiver, but vessels larger than 500 gross tons must carry two of each unit. |  |
| 4 | 1810 | A | Halon extinguishes a fire by _____.  | breaking the chain reaction   | smothering the fire   | cooling the fire   | coating the fuel with a nonflammable surface  |  |
| 4 | 1811 | A | What should be your FIRST action if you discover a fire aboard ship?   | Sound the alarm.  | Attempt to put out the fire.  | Confine it by closing doors, ports, vents, etc.  | Call the Master.  |  |
| 4 | 1812 | A | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.  | apparent wind moves forward   | heeling moment decreases  | side slip decreases  | speed increases   |  |
| 4 | 1813 | C | On offshore drilling units all sleeping areas, mess areas, recreational and hospital areas that are adjacent to or immediately above a storage area or machinery space, paint locker, washroom, or toilet space must be made _____.                                  | watertight  | weathertight  | odorproof  | soundproof  |  |
| 4 | 1814 | D | Your vessel displaces 840 tons and measures 146'L x 38'B. You ship a large wave on the after deck. What is the reduction in GM due to free surface before the water drains overboard, if the after deck measures 65'L x 38'B and the weight of the water is 76 tons? | 8.76 feet   | 8.93 feet   | 9.04 feet  | 9.27 feet   |  |
| 4 | 1815 | D | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.  | speed increases   | side slip decreases   | heeling moment decreases   | apparent wind moves forward   |  |
| 4 | 1816 | C | BOTH INTERNATIONAL & INLAND Except where specifically required by the rules, a sailing vessel is NOT required to keep out of the way of a _____.   | vessel engaged in fishing   | vessel anchored   | power-driven pilot vessel on station   | vessel setting a channel buoy   |  |

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| 4 | 1817 | C | Offshore drilling units that carry twelve or more persons on a voyage of more than three days must have a _____.   | recreation room  | radar room  | hospital space  | navigation space   |  |
| 4 | 1818 | B | In which Sea Area must a compulsory vessel carry either INMARSAT or HF SITOR equipment?  | This equipment must be carried at all times at sea regardless of where the vessel will be operating. | This equipment partially satisfies the carriage requirement for vessels operating in Sea Area A3. | This equipment satisfies in full the carriage requirement for vessels operating in Sea Area A2. | HF SITOR equipment partially satisfies the carriage requirement for vessels operating in Sea Area A3, but INMARSAT equipment must be carried to satisfy the requirement when the vessel is in Sea Area A4. |  |
| 4 | 1819 | B | Your vessel displaces 968 tons and measures 158'L x 40'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 65'L x 40'B and the weight of the water is 80 tons? | 9.14 feet  | 9.45 feet   | 9.68 feet   | 9.87 feet  |  |
| 4 | 1820 | D | Your voyage planning indicates you will arrive at a waypoint in longitude 49°16.3'E at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?  | 030947C MAR  | 03094703  | 06470303Z   | 030647Z MAR  |  |
| 4 | 1821 | A | On offshore drilling units where natural ventilation is provided, each porthole or window must be fitted with _____.   | screens  | portlights  | covers  | curtains   |  |
| 4 | 1822 | D | Which hazard probably would NOT be encountered when entering an empty but uncleaned fish hold?   | Lack of oxygen   | Methane gas   | Hydrogen sulfide gas  | Carbon monoxide  |  |
| 4 | 1823 | C | What is the MINIMUM distance a vessel subject to the requirements of Annex V to MARPOL 73/78 must be located from nearest land to legally discharge paper trash?   | 5 nautical miles   | 10 nautical miles   | 12 nautical miles   | 25 nautical miles  |  |
| 4 | 1824 | C | Most recreational sailing craft have triangular sails and are said to be _____.  | Gaff rigged  | Spinnaker rigged  | Marconi rigged  | Square rigged  |  |
| 4 | 1825 | A | Each drilling unit equipped with helicopter fuel storage tanks must have the tanks installed as far as practicable from the _____.   | landing area and sources of vapor ignition   | main deck   | engine room   | drill floor  |  |

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| 4 | 1826 | C | Your vessel displaces 747 tons and measures 136'L by 34'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 56'L x 34'B and the weight of the water is 58.6 tons? | 6.04 feet                                     | 6.23 feet  | 6.51 feet  | 6.76 feet   |
| 4 | 1827 | C | The helicopter deck on an offshore drilling unit is required to be fitted with perimeter lights in alternating colors of _____.   | red and white                                 | yellow and white   | yellow and blue  | yellow and red  |
| 4 | 1828 | B | A gas-free certificate would usually be issued by a(n) _____.   | ABS marine surveyor                           | certified marine chemist   | port engineer  | Coast Guard marine inspector  |
| 4 | 1829 | D | A sailing vessel with the wind coming from 220° relative would be _____.  | close hauled on the port tack                 | close hauled on the starboard tack   | running before the wind  | on a broad reach  |
| 4 | 1830 | C | Your voyage planning indicates you will arrive at a waypoint in longitude 149°16.3'E at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?  | 030947K MAR                                   | 094703K  | 022347Z  | 234703Z   |
| 4 | 1831 | A | A slow and easy motion of a vessel in a seaway is an indication of a _____.   | small GM                                      | low center of gravity  | stiff vessel   | large GZ  |
| 4 | 1832 | C | For GMDSS, when may a compulsory vessel not be allowed to leave port?   | When the vessel is in an overloaded condition | When the vessel has arranged for both duplication of equipment AND shore-based maintenance | When the vessel has replaced a required piece of GMDSS-related equipment but its performance has not been verified or logged | When the vessel is carrying only two licensed GMDSS Radio Operators and is capable of performing all required functions |
| 4 | 1833 | C | Batteries for VHF Survival Craft Transceivers must have sufficient capacity to operate for a minimum of _____.  | 4 hours                                       | 6 hours  | 8 hours  | 12 hours  |
| 4 | 1834 | C | The liquid mud tanks on your vessel measure 20'L by 18'B by 7'D. The vessel's displacement is 986 T and the specific gravity of the mud is 1.6. What is the reduction in GM due to 2 of these tanks being slack?  | .09 foot                                      | .45 foot   | .88 foot   | 1.35 feet   |
| 4 | 1835 | B | On surface type offshore drilling units, each survival craft must be capable of being launched to the water at the minimum operating draft, under unfavorable conditions of trim and with the unit listed not less than _____.  | 16°   | 20°  | 24°  | 30°   |

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| 4 | 1836 | D | A ketch-rigged sailing vessel is sailing to windward with the wind about 50° on the port bow. All the sails are set and drawing properly. Which statement is TRUE?  | If you slack the mizzen sheet, the center of effort will move aft. | If you slack the main sheet, the lift to drag ratio of the mainsail will increase. | If you sheet in the mainsail without changing course, the vessel will heel farther and speed up. | If you strike the mainsail, the center of effort of the whole rig will move down. |  |
| 4 | 1837 | B | Each liferaft, which does not have an indicated maximum stowage height indicated on the liferaft, must be _____.  | limited to carry no more than 10 persons                           | stowed not more than 59 feet above the lightest waterline                          | stowed in quick release racks  | inspected every six months  |  |
| 4 | 1838 | A | When a sail is reefed, the sail area is _____.  | reduced  | increased  | widened  | unchanged   |  |
| 4 | 1839 | A | A sailing vessel with the wind coming from 020° relative would be _____.  | coming about   | close hauled on the port tack  | running before the wind  | on a broad reach on the starboard tack  |  |
| 4 | 1840 | B | Your voyage planning indicates you will arrive at a waypoint in longitude 149°16.3'W at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?  | 030947W  | 031947Z  | 031947 88  | 03MAR1947Z  |  |
| 4 | 1842 | B | How many VHF Survival Craft Transceivers are required aboard passenger ships?   | 2  | 3  | 4  | 5   |  |
| 4 | 1843 | D | With what other stations may portable survival craft transceivers communicate?  | Communication is permitted between survival craft.                 | Communication is permitted between survival craft and ship.                        | Communication is permitted between survival craft and rescue unit.                               | All of the above  |  |
| 4 | 1844 | C | Your vessel displaces 368 tons and measures 96'L x 28'B. You ship a large wave on the after deck. What is the reduction to GM due to free surface before the water drains overboard, if the after deck measures 42'L x 28'B and the weight of the water is 36 tons? | 4.98 feet  | 5.21 feet  | 5.43 feet  | 5.67 feet   |  |
| 4 | 1845 | C | What is the minimum number of hand held, rocket propelled, parachute, red flare, distress signals required on board offshore drilling units?  | 4  | 8  | 12   | 16  |  |
| 4 | 1846 | D | You are under sail on a close reach, and the wind is steady. While steady on course, you reef the mainsail and your speed slows. The apparent wind _____.   | is unchanged   | increases and draws aft  | increases and draws forward  | decreases and draws aft   |  |
| 4 | 1847 | D | An offshore drilling unit must be equipped with a first aid kit approved by the _____.  | Coast Guard  | American Bureau of Shipping  | Minerals Management Service  | Mine Safety and Health Administration   |  |

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|---|------|---|--|--|--|---|---|--|
| 4 | 1848 | D | Your vessel displaces 477 tons and measures 116'L x 31'B. You ship a large wave on the after deck. What is the reduction in GM due to free surface before the water drains overboard, if the after deck measures 54'L x 31'B and the weight of the water is 51.5 tons? | 6.43 feet  | 6.75 feet                                  | 6.99 feet   | 7.25 feet   |  |
| 4 | 1849 | C | Which line would NOT be used in handling a mainsail?   | Halyard  | Downhaul                                   | Uphaul  | Sheet   |  |
| 4 | 1850 | A | Your voyage planning indicates you will arrive at a waypoint in longitude 49°16.3 W at 0947 ZT on 3 March 1988. How should this date be entered into an AMVER report?  | 031247Z  | 030947P                                    | 124733 MAR  | 309473  |  |
| 4 | 1851 | A | When using a hand held smoke signal from a lifeboat, you should activate the signal _____.   | on the downwind side   | on the upwind side                         | inside the boat   | at the stern  |  |
| 4 | 1852 | C | The liquid mud tanks on your vessel measure 32'L by 15'B by 8'D. The vessel's displacement is 640 tons and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack?  | 0.74 foot  | 1.24 feet                                  | 1.41 feet   | 1.66 feet   |  |
| 4 | 1853 | A | On offshore drilling units each fire station is identified by letters and numbers at least _____.  | 2 inches high  | 3 inches high                              | 5 inches high   | 8 inches high   |  |
| 4 | 1854 | C | How is the Master or operator of a vessel required to keep the crew informed of the regulations concerning the discharging of garbage overboard?   | Give each crewmember a copy of ANNEX V of MARPOL.                    | Call an all hands meeting before sailing.  | Keep placards prominently posted.   | Have each person read and sign a copy of the regulations.     |  |
| 4 | 1855 | A | An offshore drilling unit is required to carry on board an operations manual approved by the _____.  | Coast Guard  | National Cargo Bureau                      | Minerals Management Service   | builder   |  |
| 4 | 1856 | D | A sailing vessel with the wind coming from 180° relative would be _____.   | close hauled on the starboard tack                                   | close hauled on the port tack              | on a broad reach on a port tack   | running before the wind                                       |  |
| 4 | 1857 | A | Which statement concerning locating signals in the GMDSS is FALSE?   | Locating signals are transmitted by survival craft VHF transceivers. | Locating signals are transmitted by SARTs. | Locating signals are intended to facilitate the finding of a distressed vessel or its survivors | Locating signals are not transmitted by autoalarm generators. |  |
| 4 | 1858 | C | A sailing vessel with the wind coming from 180° relative would be _____.   | close hauled on the port tack  | close hauled on the starboard tack         | running before the wind   | on a broad reach  |  |

|   |      |   |  |   |   |   |  |         |
|---|------|---|--|---|---|---|--|---------|
| 4 | 1859 | C | The parts of the sail shown are correctly labeled EXCEPT the _____.  | head  | leach   | luff  | tack   | D003SL  |
| 4 | 1860 | C | You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.  | remain on course and hold speed                 | change course to put the wind on either beam and increase speed | change course and put the stern to the wind | remain on course but decrease speed  |         |
| 4 | 1861 | B | On offshore drilling units, emergency lighting and each emergency power system must be tested at least once a _____.   | day   | week  | month                                       | year   |         |
| 4 | 1862 | B | All electrical appliances aboard a vessel should be grounded to _____.   | prevent them from falling when the vessel rolls | protect personnel from electrical shock                         | increase their operating efficiency         | prevent unauthorized personnel from operating them   |         |
| 4 | 1863 | B | On offshore drilling units, each storage battery for emergency lighting and power systems must be tested every six months under actual connected load for a period of at least _____.  | 1 hour  | 2 hours   | 3 hours                                     | 4 hours  |         |
| 4 | 1864 | D | The liquid mud tanks on your vessel measure 40'L by 20'B by 8'D. The vessel's displacement is 996 T and the specific gravity of the mud is 1.7. What is the reduction in GM due to 2 of these tanks being slack?                               | 0.95 foot                                       | 1.26 feet   | 2.10 feet                                   | 2.54 feet  |         |
| 4 | 1865 | C | The SS AMERICAN MARINER is partially loaded with a GM of 2.6 feet and drafts of: FWD 13'-07", AFT 15'-01". Use the white pages of the Stability Data Reference Book to determine what tanks you should ballast to increase the GM to 3.4 feet. | Tanks: DB1, DB3                                 | Tanks: DB5, DT1A  | Tanks: DB6, DB7, DT7                        | Tanks: DB4, DT8  |         |
| 4 | 1866 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 5.0 ft                             | Available GM 5.4 ft   | Available GM 6.1 ft                         | Available GM 6.8 ft  | ST-0046 |
| 4 | 1867 | C | Under the Pollution Regulations, when you dump garbage in to the sea you must _____.   | notify the U.S. Coast Guard                     | make an entry in the Official Logbook                           | keep a record for two years                 | No action is required if you are more than 25 miles from land and no plastic materials are dumped. |         |

|   |      |   |   |   |   |   |  |        |
|---|------|---|---|---|---|---|--|--------|
| 4 | 1868 | C | The liquid mud tanks on your vessel measure 22'L by 16'B by 7'D. The vessel's displacement is 568 T and the specific gravity of the mud is 1.6. What is the reduction in GM due to 2 of these tanks being slack?  | 0.56 foot                                   | 0.96 foot                                 | 1.18 feet   | 1.43 feet  |        |
| 4 | 1869 | D | The three corners of the main sail are called _____.  | head, fore, and aft                         | luff, leech, and spar                     | headboard, foot, and tail                           | head, tack, and clew                                 | D002SL |
| 4 | 1870 | A | When should a fire be ventilated?   | When attacking the fire directly            | When using a steam smothering system      | When using the fixed CO2 system                     | All of the above                                     |        |
| 4 | 1871 | D | If the cause of a sudden severe list is negative initial stability, counterflooding into empty tanks may _____.   | increase the righting moment                | cause an increase in the righting arm     | bring the vessel to an upright equilibrium position | cause the vessel to flop to a greater angle          |        |
| 4 | 1872 | D | Your vessel displaces 641 tons. The existing deck cargo has a center of gravity of 3.6 feet above the deck and weighs 36 tons. If you load 22 tons of ground tackle with an estimated center of gravity of 2.0 feet above the deck, what is the final height of the CG of the deck cargo? | 2.33 feet                                   | 2.55 feet                                 | 2.77 feet   | 2.99 feet  |        |
| 4 | 1874 | C | Automatic fire dampers in ventilation systems are operated by use of a _____.   | remote operated valve                       | CO2 system pressure switch                | fusible link  | heat or smoke detector                               |        |
| 4 | 1875 | C | After abandoning ship which action should be taken IMMEDIATELY upon entering a liferaft?  | Open equipment pack.                        | Issue anti-seasickness medicine.          | Get clear of the ship.                              | Dry the liferaft floor and inflate.                  |        |
| 4 | 1876 | C | A sailing vessel with the wind coming from 140° relative would be _____.  | close hauled on the starboard tack          | close hauled on the port tack             | on a broad reach                                    | running before the wind                              |        |
| 4 | 1877 | C | Which shipboard equipment will detect a signal from a SART?   | S-Band Radar                                | A DSC receiver                            | X-Band Radar  | The autoalarm  |        |
| 4 | 1878 | D | The liquid mud tanks on your vessel measure 20'L by 18'B by 7'D. The vessel's displacement is 866 T and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack?  | 0.24 foot                                   | 0.56 foot                                 | 0.95 foot   | 1.12 feet  |        |
| 4 | 1879 | B | Your vessel measures 127 feet long by 17 feet in beam. If the natural rolling period at a draft of 7'-10" is 5 seconds, what is the GM?   | 1.96 feet                                   | 2.24 feet                                 | 2.45 feet   | 2.68 feet  |        |
| 4 | 1880 | D | The primary reason for placing covers over storage batteries is to _____.   | prevent the accumulation of explosive gases | protect the hull from leaking electrolyte | prevent movement of the battery in rough waters     | protect against accidental shorting across terminals |        |

|   |      |   |  |   |   |   |   |  |
|---|------|---|--|---|---|---|---|--|
| 4 | 1881 | B | What does a SART signal sound or look like?  | It transmits "SOS" and the vessel's name and position in slow speed Morse Code. | It will appear on a radar unit's PPI as a line of dots radiating outward with the innermost dot indicating the SART's position. | It will appear on a radar unit's PPI as a line of dots radiating outward with the outermost dot indicating the SART's position. | None of the above   |  |
| 4 | 1882 | B | A sailing vessel with the wind coming from 260° relative would be _____.   | on a close reach  | on a broad reach  | on a starboard tack   | running before the wind   |  |
| 4 | 1883 | D | On offshore drilling units, the Muster List ("Station Bill") must be posted in conspicuous locations and signed by the _____.  | company man   | driller   | owner   | Master or person in charge  |  |
| 4 | 1884 | D | BOTH INTERNATIONAL & INLAND Unless the rules require otherwise, a sailing vessel must keep out of the way of _____.  | an overtaking vessel  | a pilot vessel on station   | another sailing vessel on a crossing course   | a vessel trawling   |  |
| 4 | 1885 | A | In the case of an injury causing a person to be incapacitated, the Master or person in charge of a mobile offshore drilling unit must submit a report to the _____.  | nearest Marine Safety or Marine Inspection Office                               | nearest hospital  | Department of Energy  | American Bureau of Shipping   |  |
| 4 | 1886 | D | The liquid mud tanks on your vessel measure 30'L by 15'B by 6'D. The vessel's displacement is 968 T and the specific gravity of the mud is 1.8. What is the reduction in GM due to 2 of these tanks being slack? | .19 foot  | .42 foot  | .64 foot  | .87 foot  |  |
| 4 | 1887 | C | When amendments are made to the Shipboard Oil Pollution Emergency Plan, the revisions must be submitted to the Coast Guard _____.  | one month before the anniversary date of the plan                               | six months before the end of the approval period  | and cannot be implemented without approval  | and can be implemented without immediate approval as long as final approval is received within six months of submission |  |
| 4 | 1888 | B | The liquid mud tanks on your vessel measure 18'L by 10'B by 6'D. The vessel's displacement is 944 T and the specific gravity of the mud is 1.9. What is the reduction in GM due to 2 of the tanks being slack?   | .08 foot  | .16 foot  | .45 foot  | .90 foot  |  |



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|---|------|---|--|--|---|---|---|--------|
| 4 | 1889 | A | How can rescue personnel detect that a SART is transmitting in the immediate vicinity?   | The SART's blips on the PPI will become arcs and eventually become concentric circles. | The DSC unit will react to the SART's signal and respond with the two-tone alarm. | The SART can provide an approximate location to within a two nautical mile radius, per IMO standards. | The SART signal appears as a target which comes and goes; the effect of heavy swells on a SART.                     |        |
| 4 | 1890 | C | Spaces containing batteries require good ventilation because _____.  | ventilation avoids CO2 build up  | ventilation supplies extra oxygen for charging the battery                        | ventilation avoids flammable gas accumulation   | less electrolyte is required to maintain the batteries' charge  |        |
| 4 | 1891 | C | What would most likely prevent a SART's signal from being detected?  | Signal absorption by the ionosphere  | Heavy sea swells  | The rescue personnel were monitoring the 10-cm radar  | The rescue personnel were monitoring the 3-cm radar   |        |
| 4 | 1892 | D | What is the required amount of time that a SART's battery must be able to operate the unit in the standby mode?  | 8 hours  | 2 days  | 3 days  | 4 days  |        |
| 4 | 1893 | D | Which equipment is the primary source of generating a locating signal?   | DSC only   | DSC and EPIRB   | SART and DSC  | EPIRB and SART  |        |
| 4 | 1894 | B | The liquid mud tanks on your vessel measure 24'L by 16'B by 8'D. The vessel's displacement in salt water (specific gravity 1.025) is 864 T and the specific gravity of the mud is 1.47. What is the reduction in GM due to 2 of these tanks being slack? | 0.32 foot  | 0.78 foot   | 0.96 foot   | 1.12 feet   |        |
| 4 | 1895 | B | How can a SART's effective range be maximized?   | The SART should be placed in water immediately upon activation.                        | The SART should be held as high as possible.                                      | Switch the SART into the "high" power position.   | If possible, the SART should be mounted horizontally so that its signal matches that of the searching radar signal. |        |
| 4 | 1896 | C | The edge of the sail labeled "A" is called the _____.  | leech  | clew  | luff  | headboard   | D001SL |
| 4 | 1897 | B | Which is a part of a vessel's standing rigging?  | Sheet  | Backstay  | Topping lift  | Downhaul  |        |
| 4 | 1898 | A | Your vessel displaces 585 tons and measures 128'L by 26'B. What is the reduction in GM due to free surface if the fish hold (30'L by 18'B by 9'D) is filled with 2.8 feet of water? (Each foot of water weighs 15.4 tons)                                | 0.66 foot  | 1.12 feet   | 1.37 feet   | 1.58 feet   |        |

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|---|------|---|---|---|--|---|---|--|
| 4 | 1899 | C | Your vessel displaces 684 tons and measures 132'L by 31'B. What is the reduction in GM due to free surface if the fish hold (32'L by 29'B by 9'D) is filled with 2 feet of water? (Each foot of water weighs 26.5 tons) | 2.17 feet   | 2.32 feet  | 2.52 feet   | 3.01 feet   |  |
| 4 | 1900 | C | The accumulation of dangerous fumes generated by the storage batteries is best prevented by _____.  | covering the batteries in a nonconducting, solid enclosure  | mounting the batteries in a position as high as possible   | natural or mechanical ventilation   | securing the batteries to vibration reducing mounting brackets  |  |
| 4 | 1901 | D | Which conditions will normally cause a SART to operate in the active mode?  | It will respond only to interrogation by 9-Ghz radar signals.   | A SART will normally respond to interrogation from a searching vessel's radar if the radar antenna is at least 15 meters high. | A SART will normally respond to interrogation from a searching aircraft's radar if the radar's output power is at least 10,000 watts and the aircraft is at a height of 3000 feet and within 30 nautical miles. | All of the above  |  |
| 4 | 1902 | B | Which task is NOT the responsibility of the GMDSS Radio Operator?   | Inspecting and cleaning the SART's container, and clearing the immediate storage area of any debris or obstacles. | Measuring the SART's transmitted frequency.  | Placing the SART in the test mode and verifying that the nearby PPI shows concentric circles.   | Ensuring the SART's batteries are replaced before their expiration date.  |  |
| 4 | 1903 | C | You are approaching another vessel and see that she has the signal flag "W" hoisted. What should you do?  | Proceed on present course and speed since the vessel is stopped and making no way through the water.              | Attempt to call the vessel on VHF radiotelephone because she is disabled.  | Attempt to call the vessel on VHF radiotelephone because someone on board requires medical assistance.  | Proceed on present course and speed since the vessel is declaring that she is "healthy" and requests free pratique. |  |
| 4 | 1904 | C | A sailing vessel with the wind coming over the port side is said to be on a _____.  | port jibe   | starboard jibe   | port tack   | starboard tack  |  |
| 4 | 1905 | D | What fitting on the mast works in conjunction with the shrouds to control side bend of the mast?  | Chainplate  | Hound  | Crowfoot  | Spreader  |  |

|   |      |   |  |                         |  |   |                                      |         |
|---|------|---|--|-------------------------|--|---|--------------------------------------|---------|
| 4 | 1906 | B | Your vessel displaces 930 tons and measures 156'L by 38'B. What is the reduction in GM due to free surface if the fish hold (46'L by 28'B by 8'D) is filled with 1.5 feet of water? (Each foot of water weighs 36.8 tons)  | 2.16 feet               | 2.44 feet  | 2.75 feet   | 2.99 feet                            |         |
| 4 | 1908 | C | Your vessel displaces 750 tons and measures 151'L by 35'B. What is the reduction in GM due to free surface if the fish hold (60'L by 31'B by 10'D) is filled with 3.5 feet of water? (Each foot of water weighs 53.1 tons)   | 4.14 feet               | 4.38 feet  | 4.55 feet   | 4.94 feet                            |         |
| 4 | 1909 | D | On a passenger vessel, the vessel's name must appear on _____.   | ring life buoy          | lifeboats  | lifeboat oars   | All of the above                     |         |
| 4 | 1910 | C | Which visual distress signal is acceptable for daylight use only?  | Hand-held red flare     | Self-contained rocket-propelled parachute red flare      | Hand-held orange smoke distress flare                         | Red aerial pyrotechnic flare         |         |
| 4 | 1911 | C | A ketch is a sailing vessel with _____.  | one mast                | two masts: with the mizzen stepped abaft the rudder post | two masts: with the mizzen stepped forward of the rudder post | two masts: a foremast and a mainmast |         |
| 4 | 1912 | C | Your vessel displaces 640 tons. The existing deck cargo has center of gravity of 2.3 feet above the deck and weighs 18 tons. If you load 12 tons of ground tackle with an estimated center of gravity of 21 inches above the deck, what is the final height of the CG of the deck cargo? | 1.75 feet               | 1.94 feet  | 2.08 feet   | 2.26 feet                            |         |
| 4 | 1913 | A | The SS AMERICAN MARINER has the following drafts: FWD 8'-04", AFT 15'-08". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 1.77 feet               | 1.91 feet  | 2.09 feet   | 2.21 feet                            | ST-0047 |
| 4 | 1914 | B | Your vessel displaces 728 tons and measures 138'L by 31'B. What is the reduction in GM due to free surface if the fish hold (36'L by 29'B by 9'D) is filled with 3.6 feet of water? (Each foot of water weighs 29.8 tons)  | 2.35 feet               | 2.50 feet  | 2.72 feet   | 2.96 feet                            |         |
| 4 | 1915 | B | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.  | apparent wind moves aft | heeling moment increases                                 | side slip decreases   | mainsheet must be eased              |         |

|   |      |   |   |   |  |   |   |  |
|---|------|---|---|---|--|---|---|--|
| 4 | 1916 | B | What is part of a vessel's standing rigging?  | Sheet   | Backstay   | Topping lift  | Downhaul  |  |
| 4 | 1917 | A | How can the SART's audible tone monitor be used?  | It informs survivors that assistance may be nearby.   | It informs survivors when the battery's charge condition has weakened. | It informs survivors when the SART switches to the standby mode.        | It informs survivors that a nearby vessel is signaling on DSC.                                |  |
| 4 | 1918 | B | Which equipment is not a source of locating signals?  | EPIRB's that transmit on 406 MHz                      | Survival craft VHF transceivers that provide a beacon on 121.5 MHz     | COSPAS-SARSAT EPIRBs  | SARTs operating on 9 GHz  |  |
| 4 | 1919 | A | A sailing vessel with the wind coming from 050° relative would be _____.  | close hauled on the starboard tack                    | reaching on a starboard tack   | on a broad reach on a port tack   | running before the wind   |  |
| 4 | 1920 | B | Which statement is TRUE concerning life preservers?   | Buoyant vests may be substituted for life preservers. | Kapok life preservers must have vinyl-covered pad inserts.             | Life preservers must always be worn with the same side facing outwards. | Life preservers are not designed to turn a person's face clear of the water when unconscious. |  |
| 4 | 1921 | B | Certificates of Inspection for offshore drilling units are issued for a period of _____.  | 12 months   | 24 months  | 36 months   | 48 months   |  |
| 4 | 1922 | A | BOTH INTERNATIONAL & INLAND A sailing vessel shall not impede the safe passage of a _____.  | power-driven vessel following a traffic lane          | pilot vessel enroute to a pilot station                                | law enforcement vessel  | All of the above  |  |
| 4 | 1923 | C | Except as provided by approved special examinations, each offshore drilling unit must be dry-docked at least once during every _____.   | 12 month period                                       | 18 month period  | 24 month period   | 36 month period   |  |
| 4 | 1924 | A | Your vessel displaces 645 tons and measures 132'L by 34'B. What is the reduction in GM due to free surface if the fish hold (30'L by 26'B by 8'D) is filled with 3.0 feet of water? (Each foot of water weighs 22.3 tons) | 1.76 feet   | 1.94 feet  | 2.10 feet   | 2.44 feet   |  |
| 4 | 1925 | C | A construction portfolio prepared for each new offshore drilling unit must be approved by the _____.  | American Bureau of Shipping                           | National Cargo Bureau  | U.S. Coast Guard  | Minerals Management Service   |  |
| 4 | 1926 | C | A "reaching" course is one in which the wind _____.   | comes directly over the bow                           | comes directly over the stern  | comes over an area extending from broad on the bow to the quarter       | has no effect on the vessel   |  |
| 4 | 1927 | A | On offshore drilling units, the minimum number of inclined ladders which must be fitted between each weather deck is _____.   | 1   | 2  | 3   | 4   |  |

|   |      |   |  |   |   |   |   |
|---|------|---|--|---|---|---|---|
| 4 | 1928 | D | Your vessel displaces 740 tons and measures 141'L by 34'B. What is the reduction in GM due to free surface if the fish hold (41'L by 30'B by 9'D) is filled with 2.5 feet of water? (Each foot of water weighs 35.1 tons)  | 2.14 feet   | 2.75 feet   | 2.96 feet   | 3.18 feet   |
| 4 | 1929 | B | Which statement concerning homing signals in the GMDSS is FALSE?   | A homing signal provides a bearing for rescue personnel to follow to the signal's SOURCE. | A homing signal is detected by the COSPAS-SARSAT satellites.    | A homing signal cannot be detected by a GPS receiver. | A homing signal may be transmitted by equipment attached to the survival craft.     |
| 4 | 1930 | B | You must ensure that lifesaving equipment is _____.  | locked up   | readily accessible for use                                      | inaccessible to passengers                            | on the topmost deck of the vessel at all times                                      |
| 4 | 1931 | B | The SS NORTHLAND is loaded to drafts: FWD 17'-03", AFT 19'-03". The KG is 23.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline). | 3.0°  | 4.4°  | 6.0°  | 7.5°  |
| 4 | 1932 | C | Which statement about sailing close-hauled is TRUE?  | If you ease the sheets, you can sail faster and closer to the wind.                       | If you ease the sheets, you can sail faster on the same course. | If you steer closer to the wind, you will slow down.  | If you sheet your sails closer to the centerline, you must bear away from the wind. |
| 4 | 1933 | C | The Sailing Plan, required by vessels participating in AMVER, must be sent _____.  | within 12 hours of departure  | within 24 hours of departure                                    | within a few hours before or after departure          | prior to departure  |
| 4 | 1934 | B | Which piece of required GMDSS equipment is the primary source of transmitting locating signals?  | Radio Direction Finder (RDF)  | An EPIRB transmitting on 406 MHz                                | Survival Craft Transceiver                            | A SART transmitting on 406 MHz  |
| 4 | 1935 | D | Temporary Certificates of Inspection for offshore drilling units are effective until the _____.  | Operations Manual is approved   | Minerals Management Service approval is issued                  | classification society approval is issued             | permanent Certificate of Inspection is issued                                       |
| 4 | 1936 | D | Your vessel displaces 696 tons and measures 135'L by 34'B. What is the reduction in GM due to free surface if the fish hold (32'L by 29'B by 9'D) is filled with 2.0 feet of water? (Each foot of water weighs 26.5 tons)  | 1.96 feet   | 2.04 feet   | 2.25 feet   | 2.48 feet   |
| 4 | 1937 | A | On offshore drilling units, a fire drill must be conducted at least once a _____.  | week  | month   | quarter   | year  |

|   |      |   |   |  |  |  |   |        |
|---|------|---|---|--|--|--|---|--------|
| 4 | 1938 | D | A wobbling tail shaft is an indication of _____.  | shallow water  | an engine that is misfiring  | a tight tail shaft gland   | worn stern bearing or misalignment  |        |
| 4 | 1939 | B | You have 520 tons of below deck tonnage. There is no liquid mud. If you have 160 tons of cargo above deck with a VCG above the deck of 3.2, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?   | 1.43 feet  | 2.79 feet  | 3.10 feet  | 3.64 feet   | D036DG |
| 4 | 1940 | C | Life jackets should be stowed in _____.   | survival craft   | messrooms  | readily accessible locations   | locked watertight containers  |        |
| 4 | 1941 | A | On offshore drilling units, boat drills must be conducted at least _____.   | monthly  | quarterly  | daily  | annually  |        |
| 4 | 1942 | C | Which EPIRB transmits a distress alert that is received and relayed by an INMARSAT satellite?   | Class A EPIRBs   | Class B EPIRBs   | L-Band EPIRBs  | Category I EPIRBs   |        |
| 4 | 1943 | A | Which statement concerning satellite EPIRBs is TRUE?  | Once activated, these EPIRBs continuously send up a signal for use in identifying the vessel and for determining the position of the beacon. | The coded signal identifies the nature of the Distress situation.          | The coded signal only identifies the vessel's name and port of registry. | If the GMDSS Radio Operator does not program the EPIRB, it will transmit default information such as the follow-on communications frequency and mode. |        |
| 4 | 1944 | D | You have 640 tons of below deck tonnage. There is no liquid mud aboard. If you have 160 tons of cargo above deck with a VCG above the deck of 3.4 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (see illustration D036DG, stability letter for M.V. Hudson)               | 1.24 feet  | 1.65 feet  | 1.98 feet  | 2.46 feet   | D036DG |
| 4 | 1945 | A | What is the best method to overcome the effects of shadowing when attempting to place an INMARSAT-B call?   | A small course change should work.   | Select a CES that serves the INMARSAT satellite that will handle the call. | Installing a shadow correction filter will compensate in fringe areas.   | Turning on compensators will work in all but extreme cases of shadowing.  |        |
| 4 | 1946 | C | You have 8 containers of steward's supplies each measuring 6'L by 6'B by 6'H and weighing 1.5 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (Refer to trim and stability letter for M.V. Surveyor.) | 1.00 foot  | 1.33 feet  | 1.48 feet  | 2.00 feet   | D037DG |

|   |      |   |   |   |  |  |   |        |
|---|------|---|---|---|--|--|---|--------|
| 4 | 1947 | D | BOTH INTERNATIONAL & INLAND Your 18-meter vessel is under sail at night displaying sidelights, stern light, and a red light over a green light at the masthead. If you start the auxiliary engine and engage the propeller, you must_____.  | turn your stern light off   | show two green lights instead of a red and green at the masthead | display a white light in sufficient time to prevent collision                        | turn off the red over green, turn on the white masthead light                         |        |
| 4 | 1948 | C | You have 600 tons of below deck tonnage. There is no liquid mud aboard. If you have 150 tons of cargo above deck with a VCG above the deck of 2.8 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson) | 1.96 feet   | 2.25 feet  | 3.20 feet  | 3.55 feet   | D036DG |
| 4 | 1949 | B | What is meant by "CES"?   | Coast Earth Satellite   | Coast Earth Station  | Central Equatorial Station   | Coastal Equivalent Station  |        |
| 4 | 1950 | C | The lifesaving equipment on all vessels shall be _____.   | inspected weekly  | stowed in locked compartments                                    | readily accessible   | tested yearly   |        |
| 4 | 1951 | A | If you must jump from a vessel, the correct posture includes _____.   | holding down the life preserver against the chest with one arm crossing the other, covering the mouth and nose with a hand, and feet together | knees bent and held close to the body with both arms around legs | body straight and arms held tightly at the sides for feet first entry into the water | both hands holding the life preserver below the chin with knees bent and legs crossed |        |
| 4 | 1952 | B | Your vessel displaces 497 tons. The existing deck cargo has a center of gravity of 2.5 feet above the deck and weighs 24 tons. If you load 18 tons of ground tackle with an estimated center of gravity of 18 inches above the deck, what is the final height of the CG of the deck cargo?                | 1.86 feet   | 2.07 feet  | 2.35 feet  | 2.76 feet   |        |
| 4 | 1953 | C | Which fitting is used to connect the boom to the mast?  | Clevis pin  | Gunter-lug   | Gooseneck  | Transom   |        |
| 4 | 1955 | C | How often must the emergency generator be tested on a mobile offshore drilling unit?  | Once each day   | Once each week   | Once each month  | Once each year  |        |
| 4 | 1956 | B | You have 400 tons of below deck tonnage. There is no liquid mud aboard. If you have 225 tons of cargo above deck with a VCG above the deck of 3.4 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?   | 1.96 feet   | 2.28 feet  | 2.65 feet  | 2.93 feet   | D036DG |

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|---|------|---|---|--|---|---|--|--------|
| 4 | 1957 | B | The first AMVER position report must be sent within how many hours of departure?  | 12   | 24  | 36  | 48   |        |
| 4 | 1958 | D | You have 710 tons of below deck tonnage. There is no liquid mud aboard. If you have 150 tons of cargo above deck with a VCG above the deck of 3.1 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson) | 1.84 feet  | 2.13 feet   | 2.43 feet   | 2.78 feet  | D036DG |
| 4 | 1959 | D | You have approximately 34 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 7.5 feet? (total displacement is 638 tons)  | 0.1 foot   | 0.2 foot  | 0.3 foot  | 0.4 foot   |        |
| 4 | 1961 | B | Which maintenance functions can a GMDSS Radio Operator perform?   | The Operator can make fine internal adjustments to the transmitter as long as the output power does not change by more than one percent. | The Operator is responsible for ensuring that INMARSAT antennas are free of built-up soot and clear of obstacles. | All levels of maintenance must be performed by a licensed GMDSS Radio Maintainer.   | The Operator may install an EPROM in order to ensure that the equipment continues to operate within legal constraints. |        |
| 4 | 1962 | D | You have 200 tons of below deck tonnage. There is no liquid mud aboard. If you have 140 tons of cargo above deck with a VCG above the deck of 4.2 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted?   | 0.56 foot  | 0.87 foot   | 1.04 feet   | 2.44 feet  | D036DG |
| 4 | 1963 | C | How is a distress message normally initiated through INMARSAT?  | All INMARSAT units have a dedicated key that can be pressed for immediate action.  | By adding the word "DISTRESS" in the first line of the message's preamble   | Certain INMARSAT units have a dedicated key that can be pressed for immediate action, while other systems provide menu-driven features. | By transmitting the distress message on the U.S. Coast Guard's dedicated monitoring channel.                           |        |
| 4 | 1964 | C | When crossing a bar in rough weather, you should enter on a(n) _____.   | tidal bore   | ebbing current  | flood current   | All of the above   |        |



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|---|------|---|--|--|--|--|---|--|
| 4 | 1965 | B | Which statement concerning exposure to microwave signal radiation is TRUE?   | There is minimal hazard potential as long as the Operator notifies other system users aboard the vessel that the potential exists. | The INMARSAT-B ray dome normally prevents nearby persons from being able to determine the direction of the internal antenna. | There is equally significant hazard potential from all INMARSAT antenna systems.                       | FCC type acceptance regulations require that radiated power be kept to a minimum so as to prevent hazard potential. |  |
| 4 | 1966 | B | A sailing vessel with the wind coming from 090° relative would be _____.   | close hauled on the starboard tack   | reaching on the starboard tack   | on a broad reach on the starboard tack   | close hauled on the port tack   |  |
| 4 | 1967 | A | Define the acronym MSI.  | Maritime Safety Information  | Maritime Shipping Index  | Maritime Satellite Indicator   | Mariner Safety Intelligence   |  |
| 4 | 1968 | D | Which categories of NAVTEX messages may not be selectively rejected through receiver programming?                                  | Navigational warnings  | Weather warnings   | SAR information  | All of the above  |  |
| 4 | 1969 | A | A sailing vessel with the wind coming from 290° relative would be _____.   | on a close reach on a port tack  | close hauled on a starboard tack   | on a broad reach on a port tack  | on a beam reach on a starboard tack   |  |
| 4 | 1970 | A | What product is considered a noxious liquid substance for regulatory purposes?   | Octanol  | Acetonitrile   | Hog grease   | Cetyl-Eicosyl methacrylate  |  |
| 4 | 1971 | A | Which category of NAVTEX messages may be rejected in some receivers, BUT SHOULD NOT?   | Category L navigational warnings   | Category A navigational warnings   | SAR and distress alert information   | Weather warnings  |  |
| 4 | 1972 | A | Which statement about sailing close-hauled is TRUE?  | If you ease the sheets and change heading, you can sail faster but not so close to the wind.                                       | If you ease the sheets you will be in irons.   | If you sheet your sails closer to the centerline, you can sail closer to the wind and decrease leeway. | If you sheet your sails closer to the centerline, you will luff.  |  |
| 4 | 1973 | D | To ensure receipt of all relevant MSI, a NAVTEX receiver should be turned on at least how many hours prior to departure from port? | 2  | 4  | 6  | 8   |  |
| 4 | 1974 | B | When experiencing heavy winds, you should reef sails to _____.   | bring the sails parallel to the wind   | reduce sail area exposed to the wind   | allow the sails to catch more wind   | remove all tension on the main and jib sheets   |  |
| 4 | 1975 | D | On a commercial fishing vessel, a wearable personal flotation device must be marked with the name of the _____.                    | vessel   | assigned individual  | owner of the device  | Any of the above  |  |
| 4 | 1976 | D | A capsized small sail vessel is best righted when what part of the vessel is downwind?   | Stern  | Bow  | Centerboard  | Mast  |  |
| 4 | 1977 | A | A stay is _____.   | standing rigging   | a downhaul   | a halyard  | a jib   |  |

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|---|------|---|--|---|---|---|---|--------|
| 4 | 1978 | C | How should you try to right a capsized small sailing vessel?   | Position all personnel at the stern and rock the vessel upright.                              | Position all personnel around the mast and lift the vessel upright.                               | Lock the centerboard in the down position, stand on the centerboard, and pull on a shroud or a halyard. | Put the centerboard in the up position and have all personnel haul in on the line attached to the mast. |        |
| 4 | 1979 | C | A documented oceangoing fishing vessel is required to have emergency instructions posted if it _____.  | exceeds 49 feet in length   | is over 25 gross tons   | carries more than 16 persons  | has sleeping accommodations   |        |
| 4 | 1980 | D | What product is considered a noxious liquid substance for regulatory purposes?   | Dodecyl methacrylate  | Asphalt   | Sulfur (molten)   | Latex   |        |
| 4 | 1981 | D | On a mobile offshore drilling unit it is required to _____.  | inspect the lifesaving gear provided in any helicopter landing on the rig                     | check the Certificate of Inspection of any support vessel bringing hazardous materials to the rig | insure that engineering spaces are in a clean and sanitary condition                                    | record the length of each abandonment drill in the rig's log book                                       |        |
| 4 | 1982 | B | Which system may be useful for messages, such as local storm warnings or a shore-to-ship distress alert, for which it is inappropriate to alert all ships in the satellite coverage area?  | NAVTEX  | EGC   | AMVER   | DSC   |        |
| 4 | 1983 | B | What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?  | Electricity   | Chain reaction  | Pressure  | Smoke   |        |
| 4 | 1984 | C | You have 550 tons of below deck tonnage including liquid mud. Your existing deck cargo is 120 tons with a VCG above the deck of 2.6 feet. What is the maximum additional deck cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson) | 20 tons   | 60 tons   | 120 tons  | 240 tons  | D036DG |
| 4 | 1985 | B | Each emergency generator on a mobile offshore drilling unit, when tested, must be run under a full load for at least _____.  | one hour  | two hours   | ten hours   | four hours  |        |
| 4 | 1986 | B | Which statement is TRUE?   | You need not keep a record of ground garbage dumped into the sea more than 25 miles offshore. | You must keep a record of garbage discharged in port to a shore facility.                         | You need not keep a record of garbage incinerated on the ship.  | You must keep a record of the approximate weight of the garbage dumped.                                 |        |

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|---|------|---|--|---|--|--|--|--------|
| 4 | 1987 | A | When a fire drill is conducted on a mobile offshore drilling unit, the designated person in charge must ensure that _____.   | all personnel report to their stations                          | each hose is brought to full pressure at the nozzle      | at least three portable extinguishers are activated                              | All of the above   |        |
| 4 | 1988 | C | You have 590 tons of below deck tonnage. There is no liquid mud aboard. If you have 84 tons of cargo above deck with a VCG above the deck of 2.7 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson) | 2.54 feet   | 2.85 feet  | 3.11 feet  | 3.55 feet  | D036DG |
| 4 | 1989 | D | What is the proper method to fix running rigging to a cleat?   | Half-hitches then a round turn                                  | One round turn   | A series of half-hitches   | A round turn, figure eights, and a half-hitch              |        |
| 4 | 1990 | C | What product is considered a noxious liquid substance for regulatory purposes?   | Acetonitrile  | Sulfur (molten)  | Dodecanol  | Trimethyl phosphite  |        |
| 4 | 1991 | B | It is the responsibility of the person in charge to _____.   | revise the operating manual when rig personnel change           | be fully aware of the provisions in the operating manual | maintain the rig's construction portfolio  | All of the above   |        |
| 4 | 1992 | A | A deep keel on a sailing vessel increases the _____.   | resistance to lateral movement                                  | length-depth ratio resulting in a faster hull design     | height of the center of gravity above the hull resulting in a more stable vessel | mast height to compensate for increased lateral resistance |        |
| 4 | 1993 | B | The person in charge of a mobile offshore drilling unit must insure that _____.  | the Muster List ("Station Bill") is approved by the Coast Guard | the date of each fire extinguisher test is recorded      | all personnel are trained to launch the survival craft                           | a fire drill is held at least once each day                |        |
| 4 | 1994 | A | Which kind(s) of broadcasts are available through Safety NET?  | MSI and messages to pre-defined groups of subscribers           | MSI and vessel traffic lists                             | Hourly NOAA weather broadcasts from the NWS                                      | Coastal weather broadcasts                                 |        |
| 4 | 1995 | D | Who is responsible for insuring that each survival craft on a mobile offshore drilling unit is cleaned and inspected once a year?  | The certificated lifeboatman assigned to that craft             | The certificated able seaman assigned to that craft      | The Coast Guard inspecting officer   | The designated person in charge of the rig                 |        |

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| 4 | 1996 | D | You have 240 tons of below deck tonnage. There is no liquid mud aboard. If you have 360 tons of cargo above deck with a VCG above the deck of 2.9 feet, what is the maximum allowed VCG of the remainder of the deck cargo that is permitted? (See illustration D036DG, stability letter for M.V. Hudson) | 1.35 feet  | 1.86 feet                                  | 2.56 feet   | 3.60 feet   | D036DG |
| 4 | 1997 | D | Vessels to which Annex V to MARPOL 73/78 applies may discharge garbage containing plastics _____.   | 5 nautical miles from nearest land               | 12 nautical miles from nearest land        | 25 nautical miles from nearest land                       | None of the above   |        |
| 4 | 1998 | B | Which satellite system promulgated Maritime Safety Information?   | AMVER  | SafetyNET                                  | NAVTEX  | INMARSAT-M SES  |        |
| 4 | 1999 | D | Which channel and mode should be used when initiating a Distress alert transmission?  | Channel 6 DSC                                    | Channel 6 Radiotelephony                   | Channel 13 Radiotelephony and Channel 16 DSC              | Channel 70 DSC  |        |
| 4 | 2000 | B | What product is considered a noxious liquid substance for regulatory purposes?  | Formaldehyde (>50%)                              | Nonane                                     | Methyl ethyl ketone                                       | Sulfur (molten)   |        |
| 4 | 2001 | D | The person in charge of a mobile offshore drilling unit must insure that _____.   | each bilge pump is operated at least once a week | all personnel are provided with work vests | whistles and general alarm bells are tested once each day | the date and hour of each fire drill is recorded in the log |        |
| 4 | 2002 | A | You have 420 tons of below deck tonnage and 150 tons of above deck cargo on board. You must load 135 tons of liquid mud below deck. How much more deck cargo can you load? (See the trim and stability letter for M.V. Hudson, illustration D036DG.)  | 90 tons  | 140 tons                                   | 155 tons  | 240 tons  | D036DG |
| 4 | 2003 | A | Who is responsible for maintaining the logbook on a mobile offshore drilling unit?  | The person in charge                             | The safety man                             | The rig superintendent                                    | The driller   |        |
| 4 | 2004 | A | You have 420 tons of below deck tonnage and 180 tons of above deck cargo on board. You must load 140 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)   | 60 tons  | 100 tons                                   | 180 tons  | 240 tons  | D036DG |
| 4 | 2005 | D | If there is unsafe machinery on a mobile offshore drilling unit, who is responsible for reporting the existence of the unsafe condition to the Coast Guard?   | The chief mechanic                               | The port engineer                          | The rig superintendent                                    | The designated person in charge                             |        |

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|---|------|---|---|---|---|---|---|--------|
| 4 | 2006 | B | You have 400 tons of below deck tonnage and 100 tons of above deck cargo on board. You must load 160 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.) | 85 tons   | 135 tons  | 195 tons  | 245 tons  | D036DG |
| 4 | 2007 | D | The bottom of the mast rests on the _____.  | foot plate  | sole plate  | hounds  | mast step   |        |
| 4 | 2008 | C | Your vessel measures 119 feet long by 17 feet in beam. If the natural rolling period at a draft of 5'-05" is 6 seconds, what is the GM?   | 1.14 feet   | 1.36 feet   | 1.55 feet   | 1.96 feet   |        |
| 4 | 2009 | A | Your vessel measures 114 feet long by 16 feet in beam. If the natural rolling period at a draft of 5'-06" is 6 seconds, what is the GM?   | 1.38 feet   | 1.53 feet   | 1.76 feet   | 1.98 feet   |        |
| 4 | 2010 | B | Your vessel measures 128 feet long by 21 feet in beam. If the natural rolling period at a draft of 7'-06" is 6 seconds, what is the GM?   | 1.56 feet   | 2.37 feet   | 2.55 feet   | 2.74 feet   |        |
| 4 | 2011 | B | What is the action that a GMDSS Radio Operator should take when a DSC distress alert is received?   | No action is necessary, as the DSC control unit will automatically switch to the NBDP follow-on communications frequency. | The operator should immediately set continuous watch on the radiotelephone frequency that is associated with the frequency band on which the distress alert was received. | The Operator should immediately set continuous watch on VHF channel 70.   | The Operator should immediately set continuous watch on the NBDP frequency that is associated with the frequency band on which the distress alert was received. |        |
| 4 | 2012 | C | What is the primary purpose for Digital Selective Calling (DSC)?  | DSC provides reception of weather and navigational warnings plus search and rescue information.                           | DSC provides low-cost, routine communications for the vessel operator.  | DSC is to be used for transmitting and receiving distress alerts to and from other ships or coast radio stations via radio. | This aids SAR authorities in tracking a vessel's position by satellite.   |        |
| 4 | 2013 | C | What is the minimum number of lifeboats which MUST be carried on a mobile offshore drilling unit that is allowed to carry more than 30 persons?   | 4   | 3   | 2   | 1   |        |
| 4 | 2014 | D | Your vessel measures 131 feet long by 20 feet in beam. If the natural rolling period at a draft of 8'-03" is 6 seconds, what is the GM?   | 1.26 feet   | 1.74 feet   | 1.93 feet   | 2.15 feet   |        |
| 4 | 2015 | D | A shroud is _____.  | a light sail  | a topmast stay  | a sheet   | standing rigging  |        |

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| 4 | 2016 | C | Your vessel measures 125 feet long by 17 feet in beam. If the natural rolling period at a draft of 7'-09" is 6 seconds, what is the GM?   | 0.95 foot  | 1.25 feet  | 1.55 feet  | 1.78 feet  |        |
| 4 | 2017 | C | A shipboard Oil Pollution Emergency Plan is required of _____.  | all vessels, regardless of size and commercial application                     | any barge or ship constructed or operated in such a manner that no oil in any form can be carried aboard   | an oil tanker of 150 gross tons and above, or other ship of 400 gross tons and above   | an oil tanker of 400 gross tons and above, or other ships of 150 gross tons and above  |        |
| 4 | 2018 | C | When can routine communications be resumed on a frequency or channel on which radio silence has been imposed?   | After determining that the frequency or channel appears to be no longer in use | After determining that geographic distance from the distress situation will prohibit any other signal from interfering with emergency communications | After the Rescue Coordination Center transmits a message on the frequency or channel being used for emergency communications stating that such traffic has concluded | Routine communications can resume if, in the Master's opinion, communications on that frequency or channel will not interfere with emergency communications. |        |
| 4 | 2019 | B | You have 38 containers of ships stores each measuring 6'L by 6'B by 5'H and weighing 0.6 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor) | 0.54 foot (0.16 meter)   | 1.06 feet (0.32 meter)   | 1.35 feet (0.41 meter)   | 1.64 feet (0.50 meter)   | D037DG |
| 4 | 2020 | A | Free communication will adversely affect transverse stability only when the flooded space is _____.   | off-center   | on the centerline  | completely flooded   | open to the sea above and below the waterline  |        |
| 4 | 2021 | C | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close hauled the _____.   | true wind velocity increases   | heeling moment decreases   | side slip increases  | jib sheet must be eased  |        |
| 4 | 2023 | B | If you were to jibe in a strong wind, the part of the rigging most likely to fail would be the _____.   | forestay   | backstay   | jumper stay  | halyard  |        |

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|---|------|---|--|--|--|--|--|--------|
| 4 | 2024 | C | Which step should be taken, if possible, when the vessel must be abandoned because of a distress situation?  | Alert the U.S. Coast Guard by using the survival craft's portable INMARSAT unit. | Program the SART and EPIRB to transmit the vessel's location and situation.  | Place the SART and EPIRB in the "ON" position and secure them to the survival craft.     | No additional steps are needed as the SART and EPIRB will both automatically float free and operate properly.            |        |
| 4 | 2025 | A | BOTH INTERNATIONAL & INLAND You are under sail with the auxiliary engine running and the propeller engaged on a 15 meter sail vessel. Which statement is TRUE?   | This condition is indicated by a conical shape, apex downwards.                  | You should maintain course and speed when approaching a power-driven vessel. | You must display two green lights in a vertical line at or near the masthead.            | You are considered a sailing vessel as long as sail propulsion affects the vessel's maneuverability.                     |        |
| 4 | 2026 | B | Which statement is TRUE concerning the gooseneck?  | It is a sailing maneuver which brings the vessel's head through the wind.        | It connects the boom to the mast and allows the boom to swing freely.        | It is a sailing condition where there is a loss of air flow over the sails.              | None of the above  |        |
| 4 | 2027 | A | Who is responsible for transmitting a message stating that distress communications have ceased?  | The Rescue Coordination Center (RCC) controlling the distress communications     | The vessel providing the initial communications with the distressed vessel   | The Coast Radio Station (CRS) that was first contacted concerning the distress situation | No formal message must be transmitted as long as no distress-related communications have occurred after reasonable time. |        |
| 4 | 2028 | B | Your drafts are: FWD 6'-01", AFT 6'-10". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 11 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 6 tons   | 12 tons  | 18 tons  | 24 tons  | D037DG |
| 4 | 2029 | B | A yawl is a sailing vessel with _____.   | a single mast  | two masts: with the mizzen stepped abaft the rudder post                     | two masts: with the mizzen stepped forward of the rudder post                            | two masts: a foremast and a mainmast   |        |
| 4 | 2030 | D | You have 60 tons of below deck tonnage and 220 tons of above deck cargo on board. You must load 240 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)   | 65 tons  | 85 tons  | 110 tons   | 125 tons   | D036DG |

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| 4 | 2031 | D | Which condition is NOT necessary for a combustible liquid to burn?  | The temperature of the substance must be equal to or above its fire point.                                   | The air must contain oxygen in sufficient quantity.   | The mixture of vapors with air must be within the "explosive range."   | All of the above are necessary for a combustible liquid to burn.                                     |        |
| 4 | 2032 | B | What is the primary hazard, other than fire damage, associated with a class C fire?   | Possibility of reflash   | Electrocution or shock  | Explosion  | Flashover  |        |
| 4 | 2033 | A | How is "radio silence" imposed?   | By the Rescue Coordination Center (RCC) controlling the distress communications on that frequency or channel | By the Coast Earth Station (CES) controlling the distress communications on that frequency or channel | By the Public Correspondence Station (PCS), controlling the distress communications on that frequency or channel | By the High Seas Service (HSS) controlling the distress communications on that frequency or channel. |        |
| 4 | 2034 | B | You have 12 containers of rig supplies each measuring 10'L by 4'B by 5'H and weighing 2.0 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? | 0.5 foot   | 0.9 foot  | 1.1 feet   | 1.6 feet   | D037DG |
| 4 | 2035 | B | What is usually the first step for a GMDSS Radio Operator to take when initiating a distress priority message via INMARSAT?   | Dialing the correct code on the telephone remote unit  | Pressing a "Distress Key" on the equipment  | Contacting the CES operator and announcing a distress condition is in existence                                  | Contacting the CES operator using the radiotelephone distress procedure "Mayday"...etc.              |        |
| 4 | 2036 | B | Which system provides maximum communications range?   | MF SITOR   | INMARSAT  | Digital Selective Calling on 8414.5KHz   | VHF ARQ  |        |
| 4 | 2037 | A | Which system is most likely to be subject to fading or static interference?   | HF SITOR   | INMARSAT  | Digital Selective Calling on channel 70  | VHF ARQ  |        |
| 4 | 2038 | B | Which system is least likely to be subject to fading or static interference?  | HF SITOR   | INMARSAT  | Digital Selective Calling on channel 70  | VHF ARQ  |        |
| 4 | 2039 | C | You have approximately 14 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 6 feet? (total displacement is 210 tons)  | 0.2 foot   | 0.3 foot  | 0.4 foot   | 0.5 foot   |        |



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|---|------|---|--|--|---|---|---|---------|
| 4 | 2040 | C | You have 360 tons of below deck tonnage and 145 tons of above deck cargo on board. You must load 220 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)  | 22 tons  | 48 tons   | 94 tons   | 239 tons  | D036DG  |
| 4 | 2041 | D | You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.   | barrels of 55 gallon capacity                      | both kilos and pounds                             | both cubic meters and cubic feet                        | cubic meters  |         |
| 4 | 2042 | B | Which line would be used to hoist a sail?  | Forestay   | Halyard   | Mainsheet   | Foreguy   |         |
| 4 | 2043 | B | How does a coast radio station communicating by HF radio normally identify itself?   | By its subscriber number                           | By its call sign                                  | By its MMSI   | By its MID  |         |
| 4 | 2044 | B | <b>BOTH INTERNATIONAL &amp; INLAND</b> You are under sail making 5 knots. The apparent wind is broad on the port beam at 10 knots. You see another sailing vessel dead ahead on a meeting course. What action is correct?  | Both vessels must maneuver to avoid collision.     | You must keep out of the way of the other vessel. | Only the other vessel must maneuver to avoid collision. | You are only required to maneuver if collision cannot be avoided by maneuver of the other vessel. |         |
| 4 | 2045 | B | How often does a coast radio station that regularly broadcasts traffic lists transmit the list?  | As often as is deemed necessary to effect delivery | No less often than every four hours               | Only on an as-needed basis                              | Once per 24-hour period   |         |
| 4 | 2046 | D | Your drafts are: FWD 5'-11", AFT 6'-11". From past experience, you know that the vessel will increase her draft 1 inch for every 7 tons loaded. There is rig water on board and 16 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 8 tons   | 12 tons   | 10 tons   | 14 tons   | D037DG  |
| 4 | 2047 | A | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 280 tons   | 395 tons  | 750 tons  | 990 tons  | ST-0048 |
| 4 | 2048 | A | Your drafts are: FWD 6'-02", AFT 6'-08". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 23 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 6 tons   | 12 tons   | 18 tons   | 24 tons   | D037DG  |

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| 4 | 2049 | C | The bottom of the mast rests on a part of the keel called the mast _____.  | foot  | heel   | step  | sole   |        |
| 4 | 2050 | A | You have 160 tons of below deck tonnage and 300 tons of above deck cargo on board. You must load 110 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)  | 55 tons   | 99 tons  | 140 tons  | 360 tons   | D036DG |
| 4 | 2051 | B | You are standing a radio watch aboard the rig. A crew boat calls you on VHF channel 16. When you reply with your vessel name and call letters, you should request the crew boat to switch to an intership channel such as channel _____. | 6   | 10   | 12  | 14   |        |
| 4 | 2052 | C | Which radio call-in plan is the most prudent?  | The designated responsible person must be instructed to call the Coast Guard search and rescue authorities immediately if your call does not come in on schedule. | There must be a designated responsible person available at all times to receive your call. | There must be a designated responsible person who knows they are expecting your call at a certain time. | Two responsible persons should be designated so that one can relieve the other as necessary. |        |
| 4 | 2053 | C | What is the international calling and distress channel found on all VHF-FM equipped drilling rigs?   | Channel 1   | Channel 10   | Channel 16  | Channel 68   |        |
| 4 | 2054 | A | Your vessel measures 126 feet (38 meters) long by 21 feet (6 meters) in beam. If the natural rolling period at a draft of 8 feet (2 meters) is 6 seconds, what is the GM?  | 2.4 feet (0.70 meters)  | 2.8 feet (0.85 meters)   | 3.0 feet (0.90 meters)  | 3.2 feet (0.98 meters)   |        |
| 4 | 2055 | D | What agency issues the Ship Station license for the VHF marine radio on a mobile offshore drilling unit?   | U.S. Coast Guard  | Department of Transportation   | Federal Broadcast Authority   | Federal Communications Commission  |        |
| 4 | 2056 | D | By regulation, cargo tank atmosphere must be inert before and during which operation?  | Stripping   | Loading  | crude oil washing   | All of the above   |        |
| 4 | 2057 | A | You cannot operate a VHF or SSB radiotelephone aboard a rig unless that station is licensed by the _____.  | Federal Communications Commission   | U.S. Coast Guard   | Minerals Management Service   | Department of Energy   |        |
| 4 | 2058 | D | By regulation, cargo tank atmosphere must be inert before and during which operation?  | crude oil washing   | Loading  | discharging   | All of the above   |        |

|   |      |   |   |   |  |   |   |        |
|---|------|---|---|---|--|---|---|--------|
| 4 | 2059 | D | What standing rigging supports the mast in the fore-and-aft and athwartships directions?  | Sheets and guys   | Guys and vang  | Vangs and shrouds   | Shrouds and stays   |        |
| 4 | 2060 | D | You have 400 tons of below deck tonnage and 230 tons of above deck cargo on board. You must load 220 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.) | 60 tons   | 180 tons   | 240 tons  | none  | D036DG |
| 4 | 2061 | C | Where would you find the "call sign" or "call letters" of the radio station on your rig?  | In the rig safety manual  | On the Certificate of Inspection   | On the Ship Station License   | On the rig Watch Bill                                     |        |
| 4 | 2062 | D | You are running before the wind in a fresh breeze. The boom may be prevented from accidentally jibing by using a(n) _____.  | buntline  | clewline   | outhaul   | preventer   |        |
| 4 | 2063 | B | If there are a number of survivors in the water after abandoning ship, they should _____.   | tie themselves to the unit so they won't drift with the current | form a small circular group to create a warmer pocket of water in the center of the circle | send the strongest swimmer to shore for assistance  | form a raft by lashing their life preservers together     |        |
| 4 | 2064 | B | BOTH INTERNATIONAL & INLAND You are under sail and overtaking a tug and tow. Which action is correct?   | The power-driven tug must maneuver to avoid collision.          | You must maneuver to avoid the tug and tow.  | You must maneuver to avoid collision only if the tug is to leeward and the wind is on your port side. | Both vessels are required to maneuver to avoid collision. |        |
| 4 | 2065 | D | By regulation, cargo tank atmosphere must be inert before and during which operation?   | crude oil washing   | topping off  | stripping   | All of the above  |        |
| 4 | 2066 | A | A boom vang _____.  | holds the boom down and flattens the main sail                  | draws the head of the sail to windward   | tautens the standing rigging  | douses the gaff topsail                                   |        |
| 4 | 2067 | C | You are standing radio watch and monitoring VHF Channel 16 when you receive a call to your rig, TEXAS STAR, from a supply boat. What is the proper way to answer this call?   | 'This is TEXAS STAR. Pick a channel.'                           | 'This is TEXAS STAR on Channel 16. Come back.'   | 'This is TEXAS STAR, WSR 1234, reply Channel 10.'   | 'Please stand by. We're busy right now.'                  |        |
| 4 | 2069 | A | The metal horseshoe-shaped pieces used to bend a sail onto a stay are called _____.   | hanks   | shackles   | warps   | gudgeons  |        |

|   |      |   |   |   |  |  |   |        |
|---|------|---|---|---|--|--|---|--------|
| 4 | 2070 | B | You have 360 tons of below deck tonnage and 210 tons of above deck cargo on board. You must load 100 tons of liquid mud below deck. How much more deck cargo can you load? (See illustration D036DG, stability letter for M.V. Hudson.)   | 25 tons   | 65 tons  | 95 tons  | 175 tons  | D036DG |
| 4 | 2071 | C | The generators on your rig have shut down, leaving you without navigation lights. Which emergency signal would you transmit over the VHF radio to alert vessels in the area of your predicament?  | Mayday, Mayday, Mayday  | Pan, Pan, Pan  | Security, Security, Security   | Lights out, Lights out, Lights out                      |        |
| 4 | 2072 | D | By regulation, cargo tank atmosphere must be inert before and during which operation?   | stripping   | topping off  | gravitating  | All of the above  |        |
| 4 | 2073 | C | If your rig is equipped with a SSB radio, what frequency would you use to initiate a distress call?   | 1982 kHz  | 2082 kHz   | 2182 kHz   | 2282 kHz  |        |
| 4 | 2074 | B | You have 4 containers of rig supplies each measuring 8'L by 8'B by 8'H and weighing 1.2 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor) | 1.33 feet   | 1.68 feet  | 1.96 feet  | 2.16 feet   | D037DG |
| 4 | 2075 | C | The SS NORTHLAND is loaded to drafts: FWD 28'-06", AFT 29'-10". The KG is 27.4 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline).                          | 3.7°  | 4.4°   | 5.0°   | 6.5°  |        |
| 4 | 2076 | D | A cargo tank that is initially gas freed, can be inerted by introducing inert gas by a process known as _____.  | dilution  | displacement   | precipitation  | Either A or B   |        |
| 4 | 2077 | C | BOTH INTERNATIONAL & INLAND You are proceeding under sail with the auxiliary engine running and the propeller engaged. Which statement is TRUE?   | If most of the propelling power comes from the sails, your vessel is considered a sailing vessel. | You must display a red light over a green light at the masthead. | In fog you must sound one prolonged blast at two-minute intervals when making way. | By day, you must display a black diamond shape forward. |        |

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|---|------|---|--|---|---|---|---|--------|
| 4 | 2078 | B | A device fitted over the discharge opening on a relief valve consisting of one or two woven wire fabrics is called a flame _____.  | stopper                                   | screen  | filter  | restrictor                                  |        |
| 4 | 2079 | D | Your vessel displaces 479 tons. The existing deck cargo has a center of gravity of 3.0 feet above the deck and weighs 16 tons. If you load 23 tons of anchor and anchor chain with an estimated center of gravity of 9 inches above the deck, what is the final height of the CG above the deck? | 0.33 foot                                 | 1.00 foot   | 1.45 feet   | 1.67 feet                                   |        |
| 4 | 2080 | D | You have 260 tons of below deck tonnage including liquid mud. Your existing deck cargo is 150 tons with a VCG above the deck of 2.2 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)                   | 110 tons                                  | 140 tons  | 180 tons  | 210 tons                                    | D036DG |
| 4 | 2081 | A | On offshore drilling units, each inflatable liferaft must be serviced every _____.   | 12 months                                 | 24 months   | 36 months   | 48 months                                   |        |
| 4 | 2082 | C | On a tank barge constructed on or after July 1, 1951, regulations require that each cargo tank be equipped with a vent that has a diameter of not less than _____.   | 1.5 inches                                | 2.0 inches  | 2.5 inches  | 3.0 inches                                  |        |
| 4 | 2083 | A | On offshore drilling units each inflatable liferaft that is not intended for davit launching must be stowed so as to float free or be _____.   | equipped with a hydrostatic release       | stowed in approved racks                                  | located above the main deck area                  | replaced every 12 months                    |        |
| 4 | 2084 | B | The sea painter of a lifeboat should be secured _____.   | to the bow of the lifeboat                | to an inboard thwart in the forward one-third of the boat | as close as possible to amidships of the lifeboat | anywhere along the inboard side of the boat |        |
| 4 | 2085 | D | An offshore drilling unit must have enough inflatable liferafts to accommodate at least what percentage of the persons allowed?  | 20%                                       | 30%   | 50%   | 100%  |        |
| 4 | 2086 | D | A partially full tank causes a virtual rise in the height of the _____.  | metacenter                                | center of buoyancy  | center of flotation                               | center of gravity                           |        |
| 4 | 2087 | C | The davit aboard a MODU is used to _____.  | lower personnel down by a transfer basket | lower food and water to personnel in a liferaft           | lower the liferaft down with its full complement  | move equipment around the deck              |        |
| 4 | 2088 | B | If the OCMI has NOT granted an extension, free-fall lifeboats must be lowered into the water and launched with the assigned crew at least once every _____.  | 3 months                                  | 6 months  | year  | 2 years                                     |        |

|   |      |   |  |   |                            |  |  |         |
|---|------|---|--|---|----------------------------|--|--|---------|
| 4 | 2089 | B | On a vessel carrying grades A, B, C or D cargoes, enclosed spaces where sources of vapor ignition are normally present shall NOT be segregated from cargo tanks by _____. (vessel constructed after 1970)  | cofferdams  | galleys                    | pump rooms   | tanks used to carry liquids having a flash point of 150°F or above |         |
| 4 | 2090 | A | You have 520 tons of below deck tonnage including liquid mud. Your existing deck cargo is 160 tons with a VCG above the deck of 2.7 feet. What is the maximum cargo tonnage you are permitted to load? (See the stability letter for the M.V. Hudson illustration D036DG.) | 84 tons   | 160 tons                   | 244 tons   | 317 tons   | D036DG  |
| 4 | 2091 | B | To inflate a davit launched liferaft you _____.  | initially connect the compressed air nozzle to the inflation tube | pull the inflation lanyard | connect the hand pump to the inflation tube and pump it up | connect the helium nozzle to the inflation tube                    |         |
| 4 | 2092 | D | According to regulations, cargo pumps in tank vessels carrying grade A, B, C, or D liquid cargo, shall be isolated from sources of vapor ignition by _____. (vessel constructed 1970)  | cofferdams  | general cargo spaces       | passageways or living quarters                             | gastight bulkheads   |         |
| 4 | 2093 | B | The davit launched liferaft can be boarded _____.  | from the water only   | at the deck                | by jumping down onto it                                    | through the escape tube  |         |
| 4 | 2094 | C | Your vessel measures 122 feet long by 18 feet in beam. If the natural rolling period at a draft of 6'-09" is 5 seconds, what is the GM?  | 1.4 feet  | 2.1 feet                   | 2.5 feet   | 2.9 feet   |         |
| 4 | 2095 | D | Sails may be wing and wing when _____.   | close hauled  | tacking                    | wearing  | sailing with the wind aft  |         |
| 4 | 2096 | C | Steam driven pumps are considered, by regulations, sources of vapor ignition if the steam temperature is at least _____.   | 100°C   | 212°F                      | 500°F  | 1200°F   |         |
| 4 | 2097 | A | If you reef a marconi mainsail, the sail area _____.   | becomes less  | becomes larger             | does not change  | moves aft  |         |
| 4 | 2098 | A | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 395 tons  | 530 tons                   | 750 tons   | 990 tons   | ST-0049 |
| 4 | 2099 | D | Cargo hose carried on tank vessels shall be able to withstand a pressure of at least _____.  | 75 psi  | 100 psi                    | 120 psi  | 150 psi  |         |

|   |      |   |  |   |                                       |   |                                      |        |
|---|------|---|--|---|---------------------------------------|---|--------------------------------------|--------|
| 4 | 2100 | C | You have 180 tons of below deck tonnage including liquid mud. Your existing deck cargo is 300 tons with a VCG above the deck of 3.0 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.) | 20 tons                                     | 60 tons                               | 100 tons  | 400 tons                             | D036DG |
| 4 | 2101 | D | A person on a fixed or floating platform engaged in oil exploration located 10 nautical miles from nearest land MAY discharge _____.   | food waste                                  | food, ground to less than 1"          | paper, ground to less than 1"                                   | None of the above                    |        |
| 4 | 2102 | D | The sails are properly set and trimmed. As a vessel heads up from a beam reach to close-hauled the _____.  | apparent wind remains steady                | heeling moment decreases              | side slip decreases   | speed decreases                      |        |
| 4 | 2103 | A | All lifeboats, rescue boats, and rigid-type liferafts shall be stripped, cleaned, and thoroughly overhauled at least once every _____.   | year  | 18 months                             | two years   | 30 months                            |        |
| 4 | 2104 | A | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.2 feet, and the drafts are: FWD 27'-11", AFT 28'-09"; at what angle will the vessel lose positive stability?  | 54°   | 59°                                   | 65°   | 71°                                  |        |
| 4 | 2105 | B | If a davit-launched liferaft aboard a MODU cannot be launched because of damage to the davit, you should _____.  | inflate the liferaft on deck                | roll the liferaft over the side       | go to another liferaft station                                  | get a saw and cut the liferaft free  |        |
| 4 | 2106 | C | In special cases, the Commandant of the Coast Guard may permit cargo piping to pass through machinery spaces, provided that the only cargo carried through such piping is(are) _____.  | grades A or B                               | grades D or E                         | grade E   | LFG                                  |        |
| 4 | 2107 | B | What is NOT running rigging?   | Downhaul                                    | Backstay                              | Halyard   | Sheet                                |        |
| 4 | 2108 | D | Air compressors are NOT permitted in which space(s) on a tank barge carrying grade A cargo?  | A cargo handling room                       | A space in which cargo hose is stored | An enclosed space containing cargo piping                       | All of the above                     |        |
| 4 | 2109 | A | A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.   | change course and put the stern to the wind | remain on course and hold speed       | change course to put the wind on either beam and increase speed | remain on course but slack the speed |        |

|   |      |   |   |                          |                             |                                   |   |         |
|---|------|---|---|--------------------------|-----------------------------|-----------------------------------|---|---------|
| 4 | 2110 | C | You have 650 tons of below deck tonnage including liquid mud. Your existing deck cargo is 140 tons with a VCG above the deck of 2.5 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)  | 15 tons                  | 48 tons                     | 83 tons                           | 140 tons                                  | D036DG  |
| 4 | 2111 | A | The hinge fitting used to attach the boom to the mast is the _____.   | gooseneck                | step                        | swivel                            | pintle                                    |         |
| 4 | 2112 | B | You are sailing the navigable waters of the United States. You must have a currently corrected copy (or extract) of the _____.  | List of Lights           | Tide Tables                 | Sailing Directions                | H.O. 249 Sight Reduction Tables           |         |
| 4 | 2113 | C | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 2865 tons of cargo on board with a KG of 27.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.   | KG 26.2 feet             | KG 27.4 feet                | KG 28.5 feet                      | KG 29.5 feet                              | ST-0050 |
| 4 | 2114 | D | You have hand launched an inflatable liferaft. What should be one of your FIRST actions after all persons have boarded the liferaft?  | Open the equipment pack. | Inflate the liferaft floor. | Decide on food and water rations. | Cut the sea painter and clear the vessel. |         |
| 4 | 2116 | A | You have 10 containers of rig supplies each measuring 10'L by 6'B by 6'H and weighing 1.8 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor) | 0.94 foot                | 1.36 feet                   | 1.78 feet                         | 1.96 feet                                 | D037DG  |
| 4 | 2118 | C | You have 50 containers of ships stores each measuring 6'L by 4'B by 3'H and weighing 0.4 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity?   | 1.50 feet                | 2.25 feet                   | 2.66 feet                         | 2.91 feet                                 | D037DG  |
| 4 | 2119 | B | Your vessel displaces 475 tons. The existing deck cargo has a center of gravity of 2.6 feet above the deck and weighs 22 tons. If you load 16 tons of ground tackle with an estimated center of gravity of 8 inches above the deck, what is the final height of the CG of the deck cargo?                                 | 1.64 feet                | 1.79 feet                   | 1.96 feet                         | 2.14 feet                                 |         |



|   |      |   |  |                                    |                                    |                       |                            |        |
|---|------|---|--|------------------------------------|------------------------------------|-----------------------|----------------------------|--------|
| 4 | 2120 | B | You have 480 tons of below deck tonnage including liquid mud. Your existing deck cargo is 200 tons with a VCG above the deck of 2.8 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.)     | 34 tons                            | 62 tons                            | 134 tons              | 186 tons                   | D036DG |
| 4 | 2121 | B | A life float on a fishing vessel must be equipped with _____.  | smoke flares                       | a life line                        | a hydrostatic release | a signal mirror            |        |
| 4 | 2122 | B | Your drafts are: FWD 6'-00", AFT 6'-06". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 17 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 14 tons                            | 18 tons                            | 24 tons               | 33 tons                    | D037DG |
| 4 | 2123 | C | Your oceangoing vessel has medical waste to be disposed of ashore. How many hours advance notice must you give the port or terminal?   | 6                                  | 12                                 | 24                    | 48                         |        |
| 4 | 2124 | A | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.8 feet, and the drafts are: FWD 15'-02", AFT 15'-10"; at what angle will the vessel lose positive stability?  | 73°                                | 79°                                | 87°                   | 98°                        |        |
| 4 | 2125 | B | Who should inspect and test an inflatable liferaft?  | The Chief Mate                     | An approved servicing facility     | Shipyard personnel    | A certificated lifeboatman |        |
| 4 | 2126 | D | Which spaces are required to be segregated from cargo tanks carrying grades A, B, C, or D cargoes?   | Pump rooms                         | Enclosed deck spaces               | Cofferdams            | Navigation spaces          |        |
| 4 | 2127 | C | On vessels on an international voyage, each inflatable liferaft shall have a carrying capacity of not less than _____.   | 50 percent of all persons on board | 75 percent of all persons on board | 6 persons             | 10 persons                 |        |
| 4 | 2128 | C | Your drafts are: FWD 5'-08", AFT 6'-04". From past experience, you know that the vessel will increase her draft 1 inch for every 7 tons loaded. There is rig water on board and 10 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 14.8 tons                          | 18.0 tons                          | 25.0 tons             | 32.0 tons                  | D037DG |

|   |      |   |  |  |  |  |   |         |
|---|------|---|--|--|--|--|---|---------|
| 4 | 2129 | C | Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?   | The AMVER system does not reduce the time lost for vessels responding to calls for assistance. | An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore. | There is no cost to the ship or owner for messages sent within the AMVER system. | An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant. |         |
| 4 | 2130 | C | You have 300 tons of below deck tonnage including liquid mud. Your existing deck cargo is 180 tons with a VCG above the deck of 1.9 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.) | 108 tons   | 124 tons   | 162 tons   | 342 tons  | D036DG  |
| 4 | 2131 | D | When a person is in shock, their skin will be _____.   | warm and dry   | warm and damp  | cold and dry   | cold and damp   |         |
| 4 | 2132 | C | On which vessels is GMDSS required?  | All vessels capable of international voyages   | Vessels operating outside of the range of VHF coastal radio stations   | SOLAS Convention ships of 300 gross tonnage or more.                             | Coastal vessels of less than 300 gross tons   |         |
| 4 | 2133 | A | If a vessel is sagging, which kind of stress is placed on the sheer strake?  | Compression  | Racking  | Tension  | Thrust  |         |
| 4 | 2134 | D | The flammable limits of gasoline are 1.3 to 7.6 percent volume of the air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample registers 55 on the instrument. What is the concentration of gases?             | 55%  | 5.5%   | 4.1%   | 0.7%  |         |
| 4 | 2135 | B | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 395 tons   | 530 tons   | 750 tons   | 990 tons  | ST-0051 |
| 4 | 2136 | B | A vessel's drafts are FWD 20'-08", AFT 20'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 195 tons of cargo are discharged 76 feet forward of amidships.   | FWD 19'-07", AFT 20'-10"   | FWD 19'-09", AFT 21'-01"   | FWD 20'-00", AFT 21'-00"   | FWD 20'-01", AFT 21'-05"  |         |

|   |      |   |  |   |                                      |   |  |        |
|---|------|---|--|---|--------------------------------------|---|--|--------|
| 4 | 2137 | A | Where would you find the FCC authorization for transmitting on your rig's EPIRB?   | On the Ship Station License                                 | On the side of the EPIRB transmitter | In the radio log                                  | On the Certificate of Inspection   |        |
| 4 | 2139 | B | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.0 feet, and the drafts are: FWD 28'-01", AFT 28'-06"; at what angle will the vessel lose positive stability?  | 64°   | 71°                                  | 77°   | 82°  |        |
| 4 | 2140 | A | You have 700 tons of below deck tonnage including liquid mud. Your existing deck cargo is 200 tons with a VCG above the deck of 3.0 feet. What is the maximum additional cargo tonnage you are permitted to load? (See illustration D036DG, stability letter for M.V. Hudson.) | 20 tons   | 50 tons                              | 80 tons   | 210 tons   | D036DG |
| 4 | 2141 | D | How often is a drill on the use of the line throwing appliance required to be held on a mobile offshore drilling unit?   | Once a month  | Once a year                          | Once a week                                       | Once every three months  |        |
| 4 | 2142 | D | What is meant by the term "overhaul" in firefighting?  | Slow down the spread of fire by cooling adjacent structures | Cover the fire with foam             | Smother the fire with a blanket or similar object | Break up solid objects to ensure that any deep seated fires are extinguished |        |
| 4 | 2146 | B | Aboard damaged vessels, the MOST important consideration is preserving _____.  | bilge pumping capacity                                      | reserve buoyancy                     | level attitude                                    | instability  |        |
| 4 | 2147 | C | Each life preserver must be readily accessible to the person for whom it is intended while he or she is _____.   | at work, only   | in his or her berthing area, only    | BOTH at work and in his or her berthing area      | None of the above  |        |
| 4 | 2148 | A | Your vessel's drafts are FWD 19'-03", AFT 21'-07". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 142 tons of fuel are pumped 86 feet aft.  | FWD 18'-09", AFT 22'-01"                                    | FWD 19'-00", AFT 21'-01"             | FWD 19'-00", AFT 21'-08"                          | FWD 19'-01", AFT 21'-04"   |        |
| 4 | 2149 | B | On a barge carrying grade A cargo, who determines where smoking may be permitted during a loading operation?   | The OCMI who issued the Certificate of Inspection           | The certificated tankerman on duty   | The vessel owner                                  | Smoking is not permitted during a loading operation.                         |        |
| 4 | 2150 | A | You have approximately 6 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 7 feet? (total displacement is 422 tons)  | 0.1 foot  | 0.3 foot                             | 0.5 foot  | 0.9 foot   |        |

|   |      |   |   |  |   |   |                     |         |
|---|------|---|---|--|---|---|---------------------|---------|
| 4 | 2151 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 6.9 ft  | Available GM 5.3 ft   | Available GM 4.1 ft   | Available GM 3.8 ft | ST-0052 |
| 4 | 2152 | D | You have 6 containers of ship stores each measuring 8'L by 4'B by 6'H and weighing 0.5 ton each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity? (See illustration D037DG, stability letter for M.V. Surveyor) | 1.06 feet  | 1.32 feet   | 1.65 feet   | 1.90 feet           | D037DG  |
| 4 | 2153 | A | On offshore drilling units each ring life buoy must be marked, in a contrasting color, with the unit's _____.   | name and port of registry  | owner and port of registry  | port of registry and identification number  | name and owner      |         |
| 4 | 2154 | D | What is the basic concept of GMDSS?   | Search and rescue authorities ashore can be alerted to a distress situation. | Shipping in the immediate vicinity of a ship in distress will be rapidly alerted. | Shoreside authorities and vessels can assist in a coordinated SAR operation with minimum delay. | All of the above    |         |
| 4 | 2155 | A | When sailing with the wind aft, a vessel may carry sails on both sides at the same time. The sails are _____.   | wing and wing  | luffed  | reefed  | cringled            |         |
| 4 | 2156 | A | The flammable limits of gasoline are 1.3 to 7.6 percent volume of the air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample registered 55 on the instrument's dial. What is the concentration of flammable gases?                                  | 0.7%   | 4.1%  | 5.5%  | 55%                 |         |
| 4 | 2157 | C | On offshore drilling units, each EPIRB or SART must be tested once every _____.   | day  | week  | month   | year                |         |
| 4 | 2158 | D | You have approximately 15 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 300 tons)  | 0.1 foot   | 0.2 foot  | 0.3 foot  | 0.4 foot            |         |

|   |      |   |  |  |   |  |  |  |
|---|------|---|--|--|---|--|--|--|
| 4 | 2159 | C | Your vessel displaces 528 tons. The existing cargo has a center of gravity of 2.9 feet above the deck and weighs 28 tons. If you load 14 tons of ground tackle with an estimated center of gravity of 9 inches above the deck, what is the final height of the CG of the deck cargo?       | 1.76 feet  | 1.93 feet   | 2.18 feet  | 2.43 feet  |  |
| 4 | 2160 | A | You have approximately 29 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 5 feet? (total displacement is 483 tons)   | 0.3 foot   | 0.4 foot  | 0.5 foot   | 0.6 foot   |  |
| 4 | 2161 | D | You are in a survival craft broadcasting a distress message. What information would be essential to your rescuers?   | The nature of the distress   | The time of day   | Your radio call sign   | Your position by latitude and longitude  |  |
| 4 | 2162 | D | Which tank barges require draft marks?   | Tank barges over 50 GT   | Tank barges over 100 GT   | Notch barges over 1000 GT  | All tank barges  |  |
| 4 | 2163 | B | You are approaching a small vessel and see that it has the signal flag "T" hoisted. What should you do?  | Proceed on present course and speed since the vessel is stopped and making no way through the water. | Keep clear of the vessel because it is engaged in pair trawling.                                | Attempt to call the vessel on VHF radiotelephone because it requires assistance. | Keep clear of the vessel because it has a diver down.  |  |
| 4 | 2164 | D | Your vessel is damaged, listing to port and on occasion flopping to the same angle to starboard. It has a long, slow, sluggish roll around the angle of list. There is excessive trim by the stern with little freeboard aft. What action should you take FIRST to correct this situation? | Jettison any off-center topside weights to lower GM and correct the list.                            | Pump out any slack after double-bottom tanks to reduce free surface and increase freeboard aft. | Pump out the after peak and fill the forepeak to change the trim.                | Press up any slack double-bottom tanks forward of the tipping center, then fill the forepeak if empty. |  |
| 4 | 2165 | D | A schooner is a fore-and-aft rigged vessel with _____.   | a single mast  | two masts: with the mizzen stepped abaft the rudder post  | two masts: with the mizzen stepped forward of the rudder post                    | at least two masts: a foremast and a mainmast  |  |
| 4 | 2168 | B | When a vessel is stationary and in a hogging condition, the main deck is under which type of stress?   | compression  | tension   | shear  | racking  |  |

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| 4 | 2169 | B | The flammable limits of gasoline are 1.3 to 7.6 percent volume of air. You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample caused the needle to move rapidly to 100 on the dial and remain there. What is the concentration of flammable gas? | 0  | 1.3 to 7.6%   | over 7.6%  | over 100%   |
| 4 | 2170 | B | You have approximately 60 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 960 tons)  | 0.6 foot   | 0.5 foot  | 0.4 foot   | 0.3 foot  |
| 4 | 2171 | D | The approval period for a shipboard Oil Pollution Emergency Plan expires after _____.   | two years  | three years   | four years   | five years  |
| 4 | 2172 | A | Your vessel displaces 560 tons. The existing deck cargo has a center of gravity of 4.5 feet above the deck and weighs 34 tons. If you load 10 tons of ground tackle with an estimated center of gravity of 2.8 feet above the deck, what is the final height of the CG of the deck cargo?                     | 4.11 feet  | 4.36 feet   | 4.57 feet  | 4.78 feet   |
| 4 | 2173 | B | Which statement concerning exposure to radiation is TRUE?   | The INMARSAT unit's ray dome filters out potentially dangerous UV rays.              | Certain INMARSAT systems will automatically transmit when called and can expose an individual to harmful radiation. | INMARSAT-A and B antennas are safe because they are omnidirectional. | An INMARSAT-C antenna must be carefully avoided because it focuses the transmitter's signal into a fine beam of energy. |
| 4 | 2174 | C | You are testing a tank that contained gasoline by using a combustible gas indicator. Under testing, the tank sample caused the needle to move rapidly to 100 on the dial then fall to zero. What is the concentration of flammable gas?   | Less than the flammable range  | Within the flammable range  | Over the flammable range   | The explosimeter is defective and giving a false reading.   |
| 4 | 2175 | A | To keep injured survivors warm in the water after abandoning ship, they should _____.   | be placed in the middle of a small circle formed by the other survivors in the water | float on their backs with their arms extended for maximum exposure to the air                                       | remove their life preservers and hold on to the uninjured survivors  | sip water at intervals of fifteen minutes   |

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| 4 | 2176 | C | According to regulations, cargo pump rooms, on the tank vessels handling grades A, B, or C liquid cargo, shall be equipped with power ventilation of the exhaust type having capacity sufficient to effect a complete change of air in not more than _____.                          | 1 minute   | 2 minutes  | 3 minutes                                    | 5 minutes   |        |
| 4 | 2177 | C | What is the primary equipment for receiving MSI?   | SART   | EPIRB  | NAVTEX                                       | INMARSAT-B  |        |
| 4 | 2178 | C | Your drafts are: FWD 6'-01", AFT 6'-05". From past experience, you know that the vessel will increase her draft by 1 inch for every 7 tons loaded. There is rig water on board and 20 tons of deck cargo. How many more tons of cargo can be loaded while maintaining the same trim? | none   | 10.5 tons  | 14.0 tons                                    | 17.5 tons   | D037DG |
| 4 | 2180 | B | You have approximately 16 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 640 tons)   | 0.1 foot   | 0.2 foot   | 0.3 foot                                     | 0.4 foot  |        |
| 4 | 2181 | D | To prevent the spread of fire by conduction you should _____.  | shut off all electrical power                                    | close all openings to the area                                 | remove combustibles from direct exposure     | cool the bulkheads around the fire                  |        |
| 4 | 2182 | D | Your drafts are: FWD 5'-08", AFT 6'-02". From past experience, you know that the vessel will increase her draft 1 inch for every 8 tons loaded. There is rig water on board and 11 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim?   | None   | 10 tons  | 18 tons                                      | 24 tons   | D037DG |
| 4 | 2183 | A | On offshore drilling units, all lifeboats are required to be marked with the _____.  | name and port of the unit  | owner and port of the unit                                     | drilling location                            | builder   |        |
| 4 | 2184 | D | Your vessel is damaged and is listing to port. The rolling period is short. There is sufficient freeboard so that deck edge submersion is not a problem. What corrective action should be taken FIRST in regard to the vessel's stability?   | Press up any slack double-bottom tanks to eliminate free surface | Flood any empty double-bottom tanks to add weight low and down | Jettison topside weights to reduce KG and KB | Shift any off-center weights from port to starboard |        |
| 4 | 2185 | B | On offshore drilling units, all lifeboats are required to be marked with the _____.  | name of the owner of the unit                                    | number of persons allowed in the boat                          | drilling location of the unit                | All of the above                                    |        |

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| 4 | 2186 | D | Which statement is TRUE concerning cargo hose on tank barges?  | Cargo hose must be able to withstand the shut-off head plus the static head of the cargo pump. | Cargo hose must be able to withstand the static head of the cargo pump but no less than 100 psi.                        | Cargo hose must be able to withstand the shut-off head less the static head of the cargo pump but no less than 100 psi. | Cargo hose must be able to withstand at least 150 psi. |        |
| 4 | 2187 | D | What is a functional or carriage requirement for compulsory vessels?   | A compulsory vessel must carry at least two FCC licensed GMDSS Radio Operators.                | A compulsory vessel must satisfy certain equipment carriage requirements that are determined by where the vessel sails. | A compulsory vessel must be able to transmit and respond to Distress alerts.  | All of the above                                       |        |
| 4 | 2188 | D | You have 6 containers of rig supplies each measuring 8'L by 4'B by 3'H and weighing 1.6 tons each. Each container is stowed on deck. What is the maximum VCG permitted of the remaining cargo if you are carrying rig water and load to maximum capacity?        | 0.4 foot   | 0.9 foot  | 1.75 feet   | 2.18 feet  | D037DG |
| 4 | 2189 | A | Changing direction by bringing the stern of the vessel through the eye of the wind is known as _____.  | jibing   | running before the wind   | tacking   | reefing  |        |
| 4 | 2190 | C | You have approximately 24 tons of fish on deck. What will be the shift in the center of gravity after you shift the fish to the fish hold, a vertical distance of 8 feet? (total displacement is 540 tons)   | 0.14 foot  | 0.23 foot   | 0.36 foot   | 0.44 foot  |        |
| 4 | 2191 | B | A fishing vessel that is required to have a fireman's outfit, must have all of the following in the outfit except a _____.   | flashlight   | combustible gas indicator   | self-contained breathing apparatus  | fire axe   |        |
| 4 | 2192 | D | Your vessel displaces 689 tons and measures 123'L x 31'B. You ship a large wave on the after deck which measures 65'Lx 31'B. The weight of the water is estimated at 62 tons. What is the reduction in GM due to free surface before the water drains overboard? | 5.51 feet  | 5.67 feet   | 5.89 feet   | 6.14 feet  |        |
| 4 | 2193 | A | On offshore drilling units, the lifeboats' fuel tanks must be emptied and the fuel changed at least once every _____.  | 12 months  | 24 months   | 36 months   | 48 months  |        |



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| 4 | 2194 | C | Your vessel is damaged with no list, but down by the stern. There is progressive flooding and trim by the stern is increasing. What is the effect on transverse stability after the deck edge at the stern is submerged?  | KB increases, increasing BM and therefore GM   | KG increases due to the weight of the added water on deck                 | BM decreases from loss of water plane and greater volume.  | There is no effect on transverse stability.   |
| 4 | 2195 | D | Who is charged with appointing persons to be in command of the lifeboats and(or) liferafts on a mobile offshore drilling unit?  | Rig superintendent   | Tool Pusher   | Company man  | Designated person in charge   |
| 4 | 2196 | C | BOTH INTERNATIONAL & INLAND You are on a sailing vessel with the wind on the starboard side and are approaching another sailing vessel that has the wind on the port side. Which action should you take?  | Reduce sail and hold course.   | Alter course away from the other vessel.                                  | Maintain course and speed.   | Any maneuver to avoid collision.  |
| 4 | 2197 | A | A self-righting survival craft will return to an upright position provided that all personnel _____.  | are seated with seat belts on and doors shut   | are seated with seat belts on and doors open                              | are to shift to one side to right it   | escape from the craft   |
| 4 | 2198 | D | Which statement is TRUE concerning a sailing vessel with the sails properly trimmed?  | The more the sails are sheeted in, the greater your speed will be when sailing downwind. | As the sails are sheeted in, the vessel will heel less when close hauled. | As the sails are sheeted in on a close hauled course, speed will increase as the side forces on the vessel decrease. | Sheeting in the sails will allow the vessel to sail closer to the wind but will decrease speed. |
| 4 | 2199 | B | Your vessel displaces 564 tons. The existing deck cargo has a center of gravity of 1.5 feet above the deck and weighs 41 tons. If you load 22 tons of ground tackle with an estimated center of gravity of 2.5 feet above the deck, what is the final height of the CG of the deck cargo? | 1.62 feet  | 1.85 feet   | 2.10 feet  | 2.46 feet   |
| 4 | 2200 | A | To check stability, a weight of 35 tons is lifted with the jumbo boom, whose head is 35 feet from the ship's centerline. The clinometer shows a list of 7.0° with the weight suspended. Displacement including the weight is 14,000 tons. The GM in this condition is _____.              | 0.71 foot  | 0.95 foot   | 1.26 feet  | 2.01 feet   |
| 4 | 2201 | B | The name of the fishing vessel is NOT required to be marked on a(n) _____.  | EPIRB  | inflatable liferaft   | life float   | buoyant apparatus   |
| 4 | 2202 | C | Which approved lifesaving device is required for each person on board a motor vessel carrying passengers?   | Buoyant cushion  | Buoyant vest  | Life jacket  | Ring life buoy  |
| 4 | 2203 | D | Who is responsible for lowering the survival craft?   | Roustabout   | First man aboard  | Last man aboard  | Helmsman  |

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| 4 | 2204 | B | Which communications functions must all vessels be capable of performing under GMDSS as defined by the International Maritime Organization?  | Radio direction finding                               | Distress alerting to and from vessels, search and rescue coordination, on-scene communications, signals for locating, Maritime Safety Information, general and bridge-to-bridge communications. | Communications in each of the operational ocean areas                          | All communications possible within the International Safety-NET service |  |
| 4 | 2205 | A | You board an inflatable liferaft that has been hand launched from a sinking vessel. What should you do FIRST after everyone is onboard the liferaft?   | Cut the painter.                                      | Operate the radio equipment.  | Open the equipment pack.   | Ventilate the liferaft of CO2.  |  |
| 4 | 2206 | D | Which action will NOT reduce heeling of a vessel when sailing on a tack?   | Heading up until your sails begin to luff             | Easing sheets   | Reefing sails  | Changing to larger sails  |  |
| 4 | 2207 | B | You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.   | both cubic meters and cubic feet                      | cubic meters  | both kilos and pounds  | barrels of 55 gallon capacity   |  |
| 4 | 2208 | B | Your 20-ton ketch-rigged sailing vessel is sailing close hauled on the port tack in a moderate breeze with all sails properly trimmed. You wish to bear off quickly to avoid a floating hazard. To utilize your sails to assist with the turn, you should _____.             | slack the jib sheet                                   | slack the mizzen sheet  | put your rudder hard to port   | All of the above  |  |
| 4 | 2209 | A | What are the health hazard ratings for a product of triethylbenzene?   | 1,1,1   | 2,2,2   | 0,1,1  | Unavailable   |  |
| 4 | 2210 | A | To check stability, a weight of 10 tons is lifted with the jumbo boom whose head is 45 ft. from the ship's centerline. The clinometer show's a list of 5.0° with weight suspended. Displacement including the weight is 9,000 tons. The GM while in this condition is _____. | 0.57 foot   | 0.72 foot   | 0.96 foot  | 1.25 feet   |  |
| 4 | 2211 | A | You discharge garbage overboard at sea. When recording your vessel's position as required, you must include _____.   | latitude, longitude and estimated distance from shore | latitude, longitude and approximate depth of water  | latitude, longitude, course, speed, and a copy of that days noon position slip | Latitude and longitude only   |  |

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| 4 | 2212 | D | In order to maintain speed while changing course from a close reach to a broad reach, the sails should be _____. | lowered   | reefed  | hauled in  | eased out   |  |
| 4 | 2213 | C | When abandoning a MODU, after launching the survival craft you should _____.                                     | plot a course for the nearest land  | take a vote on which direction you should go  | stay in the immediate area   | go in one direction until fuel runs out                             |  |
| 4 | 2214 | C | Which statement concerning maintenance requirements is FALSE?  | Compulsory vessels sailing in Sea Areas A1 and A2 must provide any one of the three maintenance options which are duplication of equipment, shore based or at-sea maintenance capability. | Compulsory vessels sailing in Areas A3 and A4 must provide any two of the three maintenance options which are duplication of equipment, shore based or at-sea maintenance capability. | If shore-based maintenance is used, maintenance services do not have to be completed or performance verified unless the vessel will be sailing to a non-US port. | Equipment warranties do not satisfy GMDSS maintenance requirements. |  |
| 4 | 2215 | D | If help has not arrived in 10-12 hours after you abandon a MODU in a survival craft, you should _____.           | go in one direction until the fuel runs out   | plot a course for the nearest land  | take a vote on which direction you should go   | shut down the engine(s) and set the sea anchor                      |  |
| 4 | 2216 | D | Which statement is generally correct regarding the maintenance requirements for ships under GMDSS?               | Redundancy of functions of certain equipment will partially meet this requirement.  | On-board maintenance provided by a person holding a GMDSS maintainer's license will partially meet the requirements.  | Shoreside maintenance and scheduled tests and inspections will partially meet this requirement.  | All of the above  |  |
| 4 | 2217 | A | Steering a survival craft broadside to the sea could cause it to _____.  | capsize   | run smoother  | run faster   | sink  |  |
| 4 | 2218 | D | The maximum length allowed between main, transverse bulkheads on a vessel is referred to as the _____.           | floodable length  | factor of subdivision   | compartment standard   | permissible length  |  |
| 4 | 2219 | A | Each buoyant work vest must be _____.  | U.S. Coast Guard approved   | marked with the name of the vessel  | equipped with a water light  | All of the above  |  |

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| 4 | 2220 | C | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 395 tons   | 530 tons   | 750 tons   | 990 tons  | ST-0053 |
| 4 | 2221 | A | In heavy seas the helmsman should steer the survival craft _____.  | into the seas  | broadside to the seas                                    | in the same direction as the seas                              | in a series of figure-eights  |         |
| 4 | 2222 | A | Which system is most likely to be affected by atmospheric disturbances?  | MF/HF radiotelephony   | VHF DSC  | INMARSAT   | SafetyNET   |         |
| 4 | 2223 | B | Knowing the compass heading that is 90° to the side of a MODU will enable the operator of a survival craft to initially steer _____.   | into the wind  | away in fire and smoke                                   | directly to the standby boat                                   | directly to the nearest land  |         |
| 4 | 2224 | B | Your vessel is drifting with the wind broad on the port beam. The marconi sail is set and flapping free. As you sheet in the maximum drive is attained when the sail _____.  | is at right angles to the true wind                                | first takes the shape of an airfoil                      | is filled with a slight flap at the leech                      | is 45° from the apparent wind   |         |
| 4 | 2225 | B | Which system is least likely to be affected by atmospheric disturbances?   | NAVTEX   | INMARSAT   | MF NBDP  | HF NBDP   |         |
| 4 | 2226 | A | You are sailing on a close reach when a strong wind suddenly heels the vessel hard over. To reduce the heeling and yet maintain speed, you should _____.   | ease the mainsheet and bear more away from the wind                | haul in on the mainsheet and steer more towards the wind | haul in on the mainsheet and ease the jib sheet                | ease all sheets and bear more into the wind   |         |
| 4 | 2227 | A | When the survival craft is supplied with bottles of compressed air they are used for _____.  | an air supply for personnel  | additional flotation                                     | priming the sprinkler system                                   | filling the self righting bags  |         |
| 4 | 2228 | D | Your sails are properly trimmed while on a reaching course. Changing to a close hauled course will _____.  | require you to sheet in for best speed                             | result in a reduction of speed                           | cause a greater heeling force to leeward                       | All of the above  |         |
| 4 | 2229 | B | To get the best speed when tacking and using a mainsail and jib, the sails should be trimmed such that _____.  | the jib is on one side of the vessel and the mainsail on the other | an air slot is formed between the two sails              | one sail is as close to a right angle as possible to the other | as much of a gap as possible exists between the two sails in order to catch the most wind |         |
| 4 | 2230 | C | To check stability, a weight of 40 tons is lifted with the jumbo boom, whose head is 40 feet from the ship's centerline. The clinometer shows a list of 6.5° with the weight suspended. Displacement including weight is 16,000 tons. The GM while in this condition is _____. | 0.21 foot  | 0.43 foot  | 0.88 foot  | 1.02 feet   |         |

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| 4 | 2232 | D | Your vessel is sailing on a port tack when a sudden gust of wind heels the vessel sharply to starboard. Which action will reduce the heeling of the vessel?  | Attempt to sail the vessel closer to the wind | Ease the sheets to allow air flow to spill off the sail | Shift weight to the port side of the vessel                  | Any of the above                                   |
| 4 | 2233 | D | You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.   | call for assistance                           | abandon ship to windward                                | keep going at half speed                                     | put the vessel's stern into the wind               |
| 4 | 2234 | B | As a vessel falls off the wind from close-hauled to a beam reach, the tendency for the vessel to move sideways through the water will _____.   | increase                                      | decrease  | change only if the vessel comes about on the opposite tack   | not change   |
| 4 | 2235 | A | You are aboard a vessel which is near a platform engaged in oil exploration. Under U.S. pollution regulations, you may NOT discharge garbage if you are within _____.  | 1650 feet (500 meters)                        | 1750 feet (533 meters)                                  | 1970 feet (600 meters)                                       | 2500 feet (762 meters)                             |
| 4 | 2236 | D | A vessel is limited to a maximum draft of 25'-11". The present drafts are: FWD 24'-10", AFT 23'-02". How much more cargo can be loaded and where should it be located if a drag of 18 inches is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 345 tons 124 feet aft of the tipping center   | 525 tons 18 feet forward of the tipping center          | 640 tons 74 feet aft of the tipping center                   | 690 tons 62 feet aft of the tipping center         |
| 4 | 2237 | D | Topside icing decreases vessel stability because it increases _____.   | displacement                                  | free surface  | draft  | KG   |
| 4 | 2238 | C | Which system has the least effective radius of operation?  | HF SITOR                                      | MF NBDP   | VHF DSC  | NAVTEX   |
| 4 | 2239 | C | You can slow or stop a sailing vessel by _____.  | put the wind off the beam and sheet in        | put the wind off the stern and ease all sheets          | bring the vessel's head into the wind and let the sails luff | raise the centerboard when running before the wind |
| 4 | 2240 | D | What is classified as a combustible liquid?  | Acetaldehyde                                  | Ethyl alcohol   | Carbon tetrachloride   | Tetraethylene glycol                               |
| 4 | 2241 | C | If the survival craft is not loaded to full capacity, the personnel should be _____.   | loaded more on the port side forward          | loaded equally on both sides with more forward          | loaded equally on both sides with more aft                   | allowed to sit anywhere                            |
| 4 | 2242 | A | An example of a grade B product is _____.  | piperyline                                    | motor gasoline  | kerosene   | mineral spirits                                    |
| 4 | 2243 | A | Aboard a survival craft, ether can be used to _____.   | start the engine in cold weather              | aid in helping personnel breathe                        | prime the sprinkler system                                   | prime the air supply                               |
| 4 | 2244 | A | According to the Chemical Data Guide, the flash point for the grade B flammable liquid piperylene is _____.  | -20°F   | 43°C  | 108°F  | not available                                      |

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| 4 | 2245 | D | The backup system on an electric start survival craft is a _____.   | hydraulic system                                     | pneumatic system   | spare battery   | hand crank  |         |
| 4 | 2246 | C | What would be classified as grade "C" petroleum product?  | Reid vapor pressure of 14 psia, flash point of 60°F. | Reid vapor pressure of 7 psia, flash point of 85°F.                  | Reid vapor pressure of 5 psia, flash point of 70°F.   | Reid vapor pressure above 8 1/2 psia but less than 14 psia. |         |
| 4 | 2247 | C | When a rescue vessel approaches a survival craft in heavy seas, the person in charge of the survival craft should _____.  | tie up to the rescue vessel                          | transfer only those personnel who are not seasick                    | wait for calmer weather before transferring personnel | transfer all personnel immediately                          |         |
| 4 | 2248 | B | A product is classified at grade B when it has a Reid vapor pressure of _____.  | 7 psia and a flash point of 80°F                     | more than 8 1/2 psia but less than 14 psia and a flash point of 72°F | 9 1/2 psia and a flash point of 95°F                  | above 14 psia   |         |
| 4 | 2249 | C | A cargo of 40 tons is to be lifted with a boom located 40 feet from the ship's centerline. The ship's displacement including the suspended cargo is 8,000 tons and the GM is 2 feet with cargo suspended. What will the list of the vessel be with the cargo suspended? | 4.9°   | 5.2°   | 5.7°  | 6.0°  |         |
| 4 | 2250 | D | Which cargo is considered volatile?   | Bunker C   | Turkey-red oil   | Sweet oil   | iso-Propylamine   |         |
| 4 | 2251 | D | What will NOT decrease the stability of a vessel?   | Topside icing  | Running with a following sea   | Using 35% of the fuel in a full tank                  | Lowering a weight suspended by a boom onto the deck         |         |
| 4 | 2252 | D | According to the Chemical Data Guide, piperylene possesses which characteristic?  | Specific Gravity of 0.86                             | A boiling point of 43°F  | A Reid vapor pressure of 14 psia                      | Insoluble in water  |         |
| 4 | 2253 | A | Using a sea anchor with the survival craft will _____.  | reduce your drift rate                               | keep the survival craft from turning over                            | aid in recovering the survival craft                  | increase your visibility                                    |         |
| 4 | 2254 | C | According to the Chemical Data Guide, 1,3 - pentadiene possesses which characteristic?  | Colorless liquid, mild aromatic odor                 | Pale yellow liquid, strong odor                                      | Colorless liquid, faint odor                          | Straw-colored liquid, sweet-odor                            |         |
| 4 | 2255 | D | The survival capsule is manufactured with fire retardant _____.   | foam   | marine plywood   | steel   | fiberglass  |         |
| 4 | 2256 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 6.8 ft                                  | Available GM 5.4 ft  | Available GM 4.1 ft                                   | Available GM 3.6 ft   | ST-0054 |
| 4 | 2257 | C | The survival craft's engine is fueled with _____.   | kerosene   | unleaded gasoline  | diesel oil  | liquefied gas   |         |
| 4 | 2258 | D | According to the Chemical Data Guide, to what chemical family does 1,3 - pentadiene belong?   | Unsaturated hydrocarbons                             | Esters   | Phosphorus  | Olefins   |         |

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| 4 | 2259 | B | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.2 feet, and the drafts are: FWD 22'-04", AFT 23'-00"; at what angle will the vessel lose positive stability?   | 72°  | 78°  | 86°                                     | 92°                                     |  |
| 4 | 2260 | D | You are making a heavy lift with the jumbo boom. Your vessel displaces 18,000 T. The 50-ton weight is on the pier, and its center is 75 feet to starboard of the centerline. The head of the boom is 112 feet above the base line, and the center of gravity of the lift when stowed on deck will be 56 feet above the base line. As the jumbo boom takes the strain, the ship lists 3.5°. What is the GM when the cargo is stowed? | 3.19 feet                                    | 3.24 feet                                    | 3.40 feet                               | 3.56 feet                               |  |
| 4 | 2261 | A | If the engine of a survival craft does not start, check to see _____.   | that the fuel valve is open                  | if the air supply system is open             | if the water sprinkler system is open   | if the limit switch is on               |  |
| 4 | 2262 | C | What is the Vapor pressure of ethylene oxide at 46 °C?  | 10.9 (psia)                                  | 38.5 (psia)                                  | 48.0 (psia)                             | 15.2 (psia)                             |  |
| 4 | 2264 | A | Where a propeller shaft passes through the hull, water is prevented from entering by means of a _____.  | stuffing box                                 | propeller boss                               | seacock                                 | stop-water                              |  |
| 4 | 2265 | B | A right-handed propeller will cause the survival craft to _____.  | walk the stern to starboard in reverse       | walk the stern to port in reverse            | run faster than a left-handed propeller | right itself if capsized                |  |
| 4 | 2266 | A | Which fire extinguishing agent can NOT be used on an ethylenediamine?   | Water foam                                   | Dry chemical powder                          | Water fog                               | Alcohol foam                            |  |
| 4 | 2267 | A | During the towing of a survival craft, a lookout should be on station to _____.   | release the towline in an emergency          | help the helmsman steer                      | look for food and water                 | check the water level in the bilge      |  |
| 4 | 2268 | D | To what chemical family does chlorallylene belong?  | Alcohols                                     | Esters                                       | Glycol ethers                           | Substituted allyl                       |  |
| 4 | 2269 | B | To what chemical family does ethylene oxide belong?   | Glycol ethers                                | Alkylene oxides                              | Esters                                  | Alcohols                                |  |
| 4 | 2270 | B | When a vessel is inclined at a small angle the center of buoyancy will _____.   | remain stationary                            | move toward the low side                     | move toward the high side               | move to the height of the metacenter    |  |
| 4 | 2271 | C | When abandoning ship, after launching the motor lifeboat you should _____.  | plot a course for the nearest land           | take a vote on which direction you should go | stay in the immediate area              | go in one direction until fuel runs out |  |
| 4 | 2272 | C | According to the Chemical Data Guide, what is NOT a characteristic of allyl chloride?   | It has a Reid vapor pressure of 10.3 (psig). | It is a clear to strawberry colored liquid.  | It has sour odor.                       | It is classified as a grade B poison.   |  |

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| 4 | 2273 | D | During an abandonment or drill, the first person to arrive at the survival craft should _____.  | pass out food and water to personnel       | open the doors and start the sprinkler system   | activate the emergency release handle                                  | open the doors and prepare the craft for boarding  |  |
| 4 | 2274 | B | A virtual rise in the center of gravity may be caused by _____.   | filling a partially filled tank            | using an on board crane to lift a freely swinging heavy object                                    | emptying a partially filled tank                                       | transferring ballast from the forepeak to the after peak   |  |
| 4 | 2275 | B | BOTH INTERNATIONAL & INLAND Your 18-meter vessel is propelled by sail and power. What action is required when the engine is stopped?  | Display a black diamond shape forward.     | Remove the black cone shape from forward.   | Remove the black balls (one at the masthead and one on each spreader). | Display a black cylindrical shape at the masthead.   |  |
| 4 | 2276 | D | What is the Reid vapor pressure of allyl chloride?  | 16.5 (psia)                                | 14.0 (psia)   | 12.9 (psia)  | 10.3 (psia)  |  |
| 4 | 2277 | B | What periodic inspection is required in order to remain in compliance with the regulations regarding GMDSS ship radio station inspections?  | U.S. Coast Guard annual inspection         | An inspection at least once every 12 months by the FCC or a holder of a GMDSS Maintainers license | FCC inspection every five years  | Periodic inspections not required if on board maintainers perform routine preventive maintenance |  |
| 4 | 2278 | C | A cargo of 75 tons is to be lifted with a boom located 50 feet from the ship's centerline. The ship's displacement including the suspended cargo is 6,000 tons and GM is 6 feet. The list of the ship with the cargo suspended from the boom will be _____. | 5.00°                                      | 5.40°   | 5.94°  | 6.50°  |  |
| 4 | 2279 | C | According to the Chemical Data Guide, when burning, the grade B flammable liquid, carbon disulfide produces _____.  | phosgene gas                               | sulfuric acid gas   | sulfur dioxide gas   | carbon tetrachloride   |  |
| 4 | 2280 | C | A vessel displaces 140,000 cubic feet of saltwater in a light condition. After loading 7500 tons of cargo and 200 tons of fuel, water and stores, she is "full and down". The vessel's light displacement is _____.   | 3000 tons                                  | 3500 tons   | 4000 tons  | 4500 tons  |  |
| 4 | 2281 | B | When retrieving the survival craft, the winch operator should stop the winch and check _____.   | that all personnel are seated in the craft | that the cable has not jumped any grooves on the drum   | which way the wind is blowing  | the hydraulic fluid level before lifting   |  |
| 4 | 2283 | C | Sails may be wing and wing when _____.  | tacking                                    | on a close reach  | sailing with the wind aft  | anchored or drifting   |  |
| 4 | 2284 | D | The flammable limits for crude oil are _____.   | 1% to 6% mixture in air                    | 20% to 40% mixture in air   | 0% to 1% mixture in air  | unavailable  |  |



|   |      |   |   |   |   |                                       |  |         |
|---|------|---|---|---|---|---------------------------------------|--|---------|
| 4 | 2285 | D | When retrieving the survival craft, the helmsman should instruct the crewman to _____.  | check the fuel level  | open the doors                                  | take the life preservers off          | check that hooks are fully locked in place       |         |
| 4 | 2286 | B | What is the boiling point of carbon disulfide?  | 167°F   | 115°F   | 111°F                                 | 46°F   |         |
| 4 | 2287 | A | The limit switches on a MODUs survival-craft winch system _____.  | stop the winch just before the craft reaches the final stowage position | limit the amount of cable on the drum           | limit the ascent rate                 | stop the winch in case the craft weighs too much |         |
| 4 | 2288 | B | A major health hazard of the product tert-butylamine is that it _____.  | can be absorbed through the skin  | causes irreversible damage to eye tissue        | is a very unstable product            | All of the above                                 |         |
| 4 | 2289 | A | According to the Chemical Data Guide, what is the Reid Vapor Pressure of tert-butylamine?   | 11 (psig)   | 12 (psig)                                       | 13 (psig)                             | 14 (psig)  |         |
| 4 | 2290 | D | In order to calculate the TPI of a vessel, for any given draft, it is necessary to divide the area of the waterplane by _____.  | 35  | 120   | 240                                   | 420  |         |
| 4 | 2291 | A | The purpose for the bag or box on top of some survival craft is to _____.   | right the craft in case of capsizing                                    | increase area for radar detection               | act as a sail in case of a power loss | steady the craft in heavy seas                   |         |
| 4 | 2292 | B | Grade D liquids are those having flash points of _____.   | 80°F or less  | greater than 80°F and less than 150°F           | 150°F or greater but less than 212°F  | 212°F or greater                                 |         |
| 4 | 2294 | D | Which extinguishing agent is NOT recommended in the Chemical Data Guide for use on a cyclohexane fire?  | Foam  | Carbon dioxide                                  | Dry chemical                          | Water fog  |         |
| 4 | 2295 | A | All MODU personnel should be familiar with the survival craft's _____.  | boarding and operating procedures                                       | maintenance schedule                            | navigational systems                  | fuel consumption rates                           |         |
| 4 | 2296 | B | Regulations require that cargo pumps in tank vessels carrying grade D liquid cargo shall be isolated from sources of vapor ignition by _____.   | cofferdams  | gastight bulkheads                              | passageways or living quarters        | general cargo spaces                             |         |
| 4 | 2297 | A | Each fire pump on a tankship must have a pressure gauge located at _____.   | the pump discharge  | the manifold connection                         | each fire station discharge           | the pump station                                 |         |
| 4 | 2298 | B | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3684 tons of cargo on board with a KG of 28.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 27.0 feet  | KG 27.6 feet                                    | KG 28.2 feet                          | KG 28.8 feet                                     | ST-0055 |
| 4 | 2299 | A | The first treatment given to a person overcome by benzene vapor should be to _____.   | remove them to fresh air  | flush their face with water for about 5 minutes | stand them up and walk them around    | remove their clothing and wrap them in blankets  |         |

|   |      |   |  |  |  |   |   |         |
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| 4 | 2301 | D | If water is rising in the bilge of a survival craft, you should first _____.   | abandon the survival craft   | check for cracks in the hull   | shift all personnel to the stern                | check the bilge drain plug  |         |
| 4 | 2302 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 6.8 ft  | Available GM 5.4 ft  | Available GM 4.1 ft                             | Available GM 3.6 ft   | ST-0056 |
| 4 | 2303 | C | The air cylinder bottles in the survival craft should be refilled with _____.  | oxygen   | nitrogen   | compressed air                                  | nitrogen and oxygen   |         |
| 4 | 2304 | B | Regulations require that cargo pumprooms handling grades D and/or E liquid cargo only shall be fitted with at LEAST how many ducts extended to the weather deck?   | 1  | 2  | 3   | 4   |         |
| 4 | 2305 | B | With the sprinkler system and air system on and all hatches shut, the survival craft will provide protection from a _____.   | nuclear environment  | fire and toxic environment   | hurricane                                       | drop greater than 10 feet   |         |
| 4 | 2306 | B | Which flash point would indicate a grade D combustible liquid?   | 40°F   | 95°F   | 79°F  | 155°F   |         |
| 4 | 2307 | B | Why does a centrifugal bilge pump require priming?   | To lubricate shaft seals   | Lack of ability to lift water level to impellers   | Head pressure must equal discharge pressure     | To overcome resistance of water in the discharge line                   |         |
| 4 | 2309 | D | Your vessel is preparing to lift a weight of 30 tons with a boom whose head is 30 feet from the ship's centerline. The ship's displacement not including the weight lifted is 8,790 tons. KM is 21.5 ft; KG is 20.5 ft. The angle of list when the weight is lifted will be _____. | 1.4°   | 2.8°   | 3.4°  | 5.8°  |         |
| 4 | 2310 | B | A fire pump may be used for other purposes if _____.   | the other services are run off a reducing station with a pressure gage | one of the required pumps is kept available for use on the fire main system at all times | no relief valves are installed                  | all of the above conditions are met                                     |         |
| 4 | 2311 | A | What causes cavitation in a centrifugal pump?  | Vapor pockets in the flow stream                                       | Rough impeller surfaces  | Worn wearing rings                              | Heavy fluid in the flow stream  |         |
| 4 | 2312 | A | Which statement is TRUE concerning the short exposure tolerance for Benzene?   | 3000 ppm is endurable for 30 - 60 minutes (single exposure)            | 500 - 1000 ppm for 30 - 60 minutes will produce definite irritation to the trachea       | 5.5 ppm for 1 minute is practically intolerable | No chronic effects noticed after 20,000 ppm exposure for 5 - 10 minutes |         |
| 4 | 2313 | A | A hydraulic accumulator aboard a MODU is designed to _____.  | store fluid under pressure   | act as a fluid reservoir   | provide overpressure relief                     | replenish fluid to a system   |         |

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|---|------|---|---|---|--|---|--|---------|
| 4 | 2314 | D | Cargo tanks on barges fitted with goose neck vents and flame screens are limited to carrying which grade of cargo?  | A and below   | B and below  | C and below   | D and E only   |         |
| 4 | 2315 | D | What is the function of an air receiver in the compressed air system on a MODU?   | Condenses moisture  | Provides overpressure protection   | Purifies the air  | Acts as an accumulator   |         |
| 4 | 2316 | C | The flammable limits for motor gasoline are _____.  | 5.3% to 7% mixture in air                                   | 0.9% to 5.9% mixture in air  | 1.4% to 7.6% mixture in air   | 2.5% to 12.8% mixture in air   |         |
| 4 | 2317 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 7.7 feet  | 9.1 feet   | 9.9 feet  | 10.6 feet  | ST-0057 |
| 4 | 2318 | B | A vessel's drafts are FWD 19'-02", AFT 23'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 98 tons of fuel is pumped 116 feet forward. | FWD 19'-04", AFT 23'-06"                                    | FWD 19'-07", AFT 23'-04"   | FWD 19'-09", AFT 23'-01"  | FWD 19'-09", AFT 23'-06"   |         |
| 4 | 2319 | C | What is NOT generally a characteristic of inhaling light naphtha?   | Dizziness   | Headache   | Vomiting  | Coughing   |         |
| 4 | 2320 | D | You are attempting to recover a mooring buoy. If you approach the object on the port tack, how would you slow the vessel as you draw near?  | Quickly change to a starboard tack as you reach the object. | Shift the rudder from port to starboard several times as you reach the object. | Bring the wind so that it comes over the stern and ease all the sheets. | Bring the wind directly over the bow and allow the sails to luff.                                |         |
| 4 | 2322 | A | What is NOT a requirement of cargo piping installed in tank vessels carrying grade D or E cargo ONLY?   | The cargo piping system shall be fixed.                     | Flanged joints shall be used for pipe sizes exceeding 2 inches in diameter.    | Piping through bunker spaces may be run through a pipe tunnel.          | Connections at bulkheads must be made so that the plating does not form part of a flanged joint. |         |
| 4 | 2323 | B | Why is electrical power preferred over mechanical power for driving heavy machinery on drilling rigs?   | More fuel efficient   | More flexible  | Lighter   | Less maintenance   |         |
| 4 | 2324 | A | How many fire extinguishers, and what type, are required on an unmanned oil barge during transfer operations, if the barge has no cargo pumps aboard?   | One B-II  | Two B-II   | One B-V   | Two A-II   |         |

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| 4 | 2325 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 395 tons   | 530 tons   | 750 tons  | 990 tons  | ST-0058 |
| 4 | 2326 | C | In order to carry a cargo of triethanolamine, what hull type is required?  | I  | II   | III   | IV  |         |
| 4 | 2327 | D | How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 600 brake horsepower?   | 5  | 4  | 3   | 2   |         |
| 4 | 2328 | B | Which of the flash points would indicate a grade D combustible liquid?   | 65°F   | 87°F   | 155°F   | 160°F   |         |
| 4 | 2329 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 3.2 ft  | Available GM 3.9 ft  | Available GM 4.8 ft   | Available GM 5.3 ft   | ST-0059 |
| 4 | 2330 | C | What is the purpose of a centerboard when sailing on a tack?   | To reduce heeling of the vessel  | To add weight stability  | To reduce side slip of the vessel   | To prevent the vessel from jibing   |         |
| 4 | 2331 | B | What prevents water running along the shaft of a leaking centrifugal pump from entering the shaft bearing?   | Shaft seal   | Water flinger  | Drain hole  | Lantern ring  |         |
| 4 | 2332 | D | The amount of LFG that may be loaded into a given tank is determined by _____.   | checking the loading sheet   | loading to within 1 percent of outage  | loading to within 10 percent of the safety relief valve setting   | filling to the maximum level indicated on the liquid level gauging device |         |
| 4 | 2333 | A | You are sailing into a harbor with the intention of picking up your mooring. There is no current. Which statement(s) is(are) TRUE?   | On a ketch, you will most likely strike the jib before making your final approach. | On a yawl, the last sail you will strike after you have picked up the mooring will normally be the mainsail. | On a sloop, if your initial approach is to be downwind you could slow your approach by striking the jib and letting your main sheet out as far as it will go. | All of the above are correct.   |         |
| 4 | 2334 | D | Which flash point would indicate a grade E combustible liquid?   | 80°F   | 75°F   | 140°F   | 155°F   |         |
| 4 | 2335 | A | What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?  | Chain reaction   | Electricity  | Pressure  | Smoke   |         |

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| 4 | 2336 | C | While loading bulk oil in a barge, you notice oil on the water alongside. What should you do FIRST?   | Search the vessel for leaks.        | Notify the terminal superintendent.       | Stop loading.                          | Notify the Coast Guard.              |         |
| 4 | 2337 | A | Sideways movement of the mast is resisted by the _____.   | shrouds                             | halyards                                  | sheets                                 | forestay                             |         |
| 4 | 2338 | C | In order to check your vessel's stability, a weight of 40 tons is lifted with the jumbo boom, the boom head being 50 feet from the ship's centerline. The clinometer is then carefully read and shows a list of 5°. The vessel's displacement is 8,000 tons including the suspended weight. What will be the metacentric height of the vessel at this time? | 2.74 feet                           | 2.80 feet                                 | 2.86 feet                              | 2.93 feet                            |         |
| 4 | 2339 | B | Sixty tons of cargo are raised with a boom 45 feet from the centerline. The vessel's displacement including the weight lifted is 16,400 tons. The angle of list caused by the suspended weight is 1.5°. KM is 28.75 ft., and BM is 17.25 ft. What is the KG?  | 11.65 feet                          | 22.46 feet                                | 23.15 feet                             | 23.82 feet                           |         |
| 4 | 2341 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 5.26 ft                | Available GM 4.24 ft                      | Available GM 4.11 ft                   | Available GM 4.01 ft                 | ST-0060 |
| 4 | 2342 | A | Your vessel's drafts are: FWD 13'-11", AFT 11'-09". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)  | 9069 tons                           | 9172 tons                                 | 9207 tons                              | 9244 tons                            |         |
| 4 | 2343 | D | A marker pole, with a horseshoe buoy and a sea anchor attached, should be used to _____.  | mark the position of a lost mooring | determine your vessel's sideslip underway | determine your speed through the water | indicate location of a man overboard |         |
| 4 | 2344 | C | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 25.2 feet, and the drafts are: FWD 22'-03", AFT 23'-01"; at what angle will the vessel lose positive stability?   | 92°                                 | 77°                                       | 68°                                    | 61°                                  |         |

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| 4 | 2345 | D | During an annual FCC inspection _____.   | all required documents and publications may have to be produced | licensed GMDSS radio operators may be required to demonstrate equipment competencies | all required equipment must be fully operational                      | All of the above  |  |
| 4 | 2346 | D | Grade E liquids are those having a flash point of _____.   | 150°F and below   | below 150° and above 80°F  | below 80°F  | 150°F and above   |  |
| 4 | 2347 | B | Which references should the GMDSS radio operator consult for information on the proper operation of the equipment?   | ITU list of Equipment Operations                                | The manufacturer's operating manuals   | 47 CFR Part 80  | Information available through SafetyNET channels                    |  |
| 4 | 2348 | D | Regulations require that venting for cargo tanks in which only grades D or E liquids are to be transported shall, as a MINIMUM, be of which type? (tank barge constructed on or after July 1, 1951)                            | Straight vents open to atmosphere                               | Individual pressure vacuum relief valves   | Branch vent lines connected to a vent header system                   | Gooseneck vents and flame screens                                   |  |
| 4 | 2349 | D | What should the GMDSS radio operator consult to review the proper procedures to be followed in distress situations under GMDSS?  | IMO recommendations   | The manufacturers instruction manuals  | Part 90 of the FCC Rules and Regulations                              | Part 80, Subpart W of the FCC Rules and Regulations                 |  |
| 4 | 2350 | C | What is NOT required of the cargo tank venting on a tank barge carrying grade A liquids?   | Each cargo tank must have a vent.                               | A vent header must be fitted with a pressure-vacuum valve.                           | The diameter of the vent must be greater than 4 inches in diameter.   | The vent must extend to a reasonable height above the weather deck. |  |
| 4 | 2351 | C | How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 2200 brake horsepower?  | 5   | 4  | 3   | 2   |  |
| 4 | 2352 | C | Your vessel's drafts are: FWD 18'-09", AFT 19'-01". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book) | 5333 tons   | 5420 tons  | 5649 tons   | 5775 tons   |  |
| 4 | 2353 | D | Which documents are required by GMDSS for vessels on international voyages (other than the Great Lakes)?   | A copy of the IMO master plan of shore-based facilities         | Station logs   | 47 CFR Part 80 FCC Rules and Regulations                              | All of the above  |  |
| 4 | 2354 | D | Which documents are required by Part 80 of the FCC Rules for vessels on international voyages (other than the Great Lakes)?  | Appropriate Safety Convention Certificate                       | International list of ship call signs (ITU List VI)                                  | List of Radiodetermination and Special Service Stations (ITU List VI) | All of the above  |  |

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| 4 | 2355 | B | What publication/s should a GMDSS Operator consult regarding the proper set-up and operation of vessel equipment?   | ITU Publications  | The manufacturers instruction manuals  | Part 90 of the FCC Rules and Regulations   | Code of Federal Regulations, Title 47, Part 80, Subpart W`   |
| 4 | 2356 | A | Your vessel's drafts are: FWD 22'-04", AFT 21'-06". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 300 tons are loaded 122 feet forward of amidships; (2) 225 tons are loaded 150 feet aft of amidships; and 122 tons of fuel are pumped 72 feet aft. | FWD 22'-11", AFT 22'-09"  | FWD 23'-00", AFT 23'-00"   | FWD 23'-02", AFT 23'-01"   | FWD 23'-03", AFT 23'-05"   |
| 4 | 2357 | C | When may a compulsory vessel not be allowed to leave port?  | When the vessel is in an overloaded condition                                       | When the vessel has arranged for both duplication of equipment AND shore-based maintenance | When the vessel has replaced a required piece of GMDSS-related equipment but its performance has not been verified or logged | When the vessel is carrying only two licensed GMDSS Radio Operators and is capable of performing all required functions.                   |
| 4 | 2358 | C | Your vessel's drafts are FWD 20'-08", AFT 23'-00". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 195 tons of cargo are discharged 76 feet aft of amidships.   | FWD 20'-05", AFT 21'-11"  | FWD 20'-07", AFT 22'-01"   | FWD 20'-11", AFT 22'-00"   | FWD 21'-03", AFT 22'-04"   |
| 4 | 2359 | C | An example of a grade D product is _____.   | heavy fuel oil  | aviation gas grade 115/145   | kerosene   | commercial gasoline  |
| 4 | 2360 | B | According to regulations, ethylene oxide shall be loaded at a temperature below _____.  | 90°F  | 70°F   | 51°F   | its flash point  |
| 4 | 2361 | A | What are the conditions, under GMDSS, whereby a ship is NOT allowed to depart from any port?  | The vessel is not capable of performing all required distress and safety functions. | The vessel is carrying more than the required number of qualified GMDSS radio operators.   | The vessel has a temporary waiver of its radio license and Safety Certificate.   | The vessel is not carrying a GMDSS radio maintainer, but has provided for shoreside maintenance plus duplication of equipment if required. |
| 4 | 2362 | D | A tankerman who permits or causes oil to go into a navigable waterway may be punished federally by _____.   | fine  | imprisonment   | suspension or revocation of tankerman's document   | All of the above   |

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| 4 | 2363 | D | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 22.0 feet, and the drafts are: FWD 23'-06", AFT 24'-03"; at what angle will the vessel lose positive stability?  | 76°   | 84°                                | 89°  | 98°  |         |
| 4 | 2364 | A | Your vessel is limited to a maximum draft of 27'-06". The present drafts are: FWD 24'-10", AFT 26'-00". How much more cargo can be loaded and where should it be located if a drag of 1 foot is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 950 tons 2.5 feet forward of the tipping center | 950 tons 5.6 feet aft of amidships | 1250 tons 4.3 feet forward of amidships                | 1250 tons 1.4 feet aft of the tipping center |         |
| 4 | 2365 | D | The space around a pipe in a wellbore, the outer wall of which may be the wall of either the borehole or the casing, is the _____.   | open hole                                       | down hole                          | bore   | annulus                                      |         |
| 4 | 2366 | A | What type of vent is required on a barge transporting No. 6 fuel oil?  | Gooseneck vents fitted with flame screens       | Pressure-vacuum                    | Branch vent line                                       | Vent header                                  |         |
| 4 | 2367 | D | The person or company, either proprietor or lessee, actually operating an oil well or lease is the _____.  | production company                              | company representative             | drilling contractor                                    | operator                                     |         |
| 4 | 2368 | C | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 22'-02", AFT 25'-08"                        | FWD 21'-07", AFT 26'-03"           | FWD 20'-11", AFT 26'-09"                               | FWD 20'-09", AFT 26'-11"                     | ST-0061 |
| 4 | 2370 | B | According to the Chemical Data Guide, the flammable limits of ethylene oxide are _____.  | 1.85 - 48.0%                                    | 2 - 100%                           | 2.7 - 34%  | 1.9 - 88.0%                                  |         |
| 4 | 2371 | C | What does the term "head" mean when applied to a fire pump?  | Length of the discharge pipe                    | Height of the discharge pipe       | Difference between the discharge and suction pressures | Sum of discharge and suction pressures       |         |
| 4 | 2372 | D | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 23.0 feet, and the drafts are: FWD 15'-03", AFT 15'-09"; at what angle will the vessel lose positive stability?  | 57°   | 72°                                | 81°  | 90°  |         |
| 4 | 2373 | D | An uncontrolled flow of gas, oil, or other well fluids into the atmosphere is called a _____.  | flow  | breakout                           | kick   | blowout                                      |         |



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| 4 | 2374 | D | You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.   | home port  | next port-of-call                                       | Master  | official number  |  |
| 4 | 2375 | B | An entry of water, gas, oil, or other formation fluid into the wellbore is called a _____.   | blowout  | kick  | gusher  | flow   |  |
| 4 | 2376 | B | A vessel is limited to a maximum draft of 26'-03". The present drafts are: FWD 21'-04", AFT 24'-06". How much more cargo can be loaded and where should it be located if a drag of 1 foot is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)  | 1676 tons 18 feet forward of amidships   | 1676 tons 18 feet forward of the tipping center         | 1972 tons 16 feet forward of amidships                  | 1972 tons 16 feet forward of the tipping center  |  |
| 4 | 2377 | C | The operation of hoisting the drill stem out of and returning it to the wellbore is called a _____.  | fish   | thribble  | trip  | tour   |  |
| 4 | 2378 | D | A vessel's drafts are FWD 23'-01", AFT 24'-11". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 142 tons are discharged 122 feet forward of amidships; (2) 321 tons are loaded 82 feet forward of amidships; and (3) 74 tons are discharged 62 feet aft of amidships. | FWD 23'-05", AFT 24'-00"   | FWD 23'-06", AFT 24'-02"                                | FWD 23'-07", AFT 24'-03"                                | FWD 23'-09", AFT 24'-05"   |  |
| 4 | 2379 | C | Regulations require that access to a cargo pumproom in a tank vessel carrying grade D liquid cargo, shall be _____.  | away from galleys, living quarters, or navigation spaces                       | only from areas equipped with power ventilation systems | from the open deck                                      | isolated from sources of vapor ignition  |  |
| 4 | 2380 | B | Access to a cargo pumproom on a tank vessel carrying grades A, B, C or D liquid cargoes shall be _____.  | at least 13.1 feet away from the galleys, living quarters or navigation spaces | from the open deck                                      | only from areas equipped with power ventilation systems | isolated from any part of the vessel which normally contains sources of vapor ignition |  |
| 4 | 2381 | B | Beyond the area of state ownership in the U.S. outer continental shelf, the right to drill is controlled by the _____.   | U.S. Coast Guard   | Minerals Management Service                             | American Bureau of Shipping                             | U.S. Corps of Engineers  |  |
| 4 | 2382 | B | Your vessel's drafts are: FWD 18'-09", AFT 20'-03". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)   | 4521 tons  | 5349 tons   | 7242 tons   | 9750 tons  |  |

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| 4 | 2383 | C | What is the minimum license requirement of a GMDSS Radio Operator?  | Holding the Marine Radio Operator Permit is a pre-requisite before the GMDSS Radio Operator Endorsement can be obtained. | Holding the General Radiotelephone Operator License with RADAR endorsement is sufficient. | Holding a valid GMDSS Radio Operator License is sufficient. | Holding either the General Radiotelephone Operator License or the First or Second Class Radiotelegraph License with GMDSS Radio Maintainer's Endorsement is sufficient. |  |
| 4 | 2384 | C | Use the material in Section 1, the blue pages, of the Stability Data Reference Book. If the KG is 24.2 feet, and the drafts are: FWD 23'-04", AFT 24'-05"; at what angle will the vessel lose positive stability? | 67°  | 71°   | 75°   | 79°   |  |
| 4 | 2385 | B | When drilling from a MODU, the conductor casing is landed with its top extending to just _____.   | above the sea floor  | below the drill floor   | below sea level   | below the sea floor   |  |
| 4 | 2386 | D | What are the vessel equipment and personnel requirements for GMDSS?   | Two licensed GMDSS radio operators   | Equipment carriage requirements   | Distress alerting and response                              | All of the above  |  |
| 4 | 2387 | C | A magnetic compass card is marked in how many degrees?  | 90   | 180   | 360   | 400   |  |
| 4 | 2388 | B | At sea, all required GMDSS equipment (other than survival craft equipment) must be proven operational by _____.   | daily testing  | either A or C   | operational use of the equipment                            | testing at least every 48 hours   |  |
| 4 | 2389 | B | The best way to test the INMARSAT-C terminal is to _____.   | send a message to a shore terminal and wait for confirmation   | compose and send a brief message to your own INMARSAT-C terminal                          | send a message to another ship terminal                     | see if the send light flashes, then proper operation has been confirmed   |  |
| 4 | 2390 | C | According to the Chemical Data Guide, ethylene oxide exhibits which fire and explosion hazard?  | It breaks down into highly toxic fumes of bromides.  | It reacts with water to provide flammable vapors.   | It does not need oxygen for combustion.                     | Its flash point is 80.4°F.  |  |
| 4 | 2391 | B | When fire pumps are used for other than firefighting services, each pipe connecting the other service (except for branch lines used for deck washing) must have a _____.  | check valve installed in the line  | shut off valve at a manifold near the pump  | quick disconnect union within ten feet of the pump          | regulator in the line set at 125 psi  |  |

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|---|------|---|---|---|--|---|------------------------------|
| 4 | 2392 | D | Your vessel's drafts are: FWD 13'-11", AFT 16'-05". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)  | 7109 tons   | 7316 tons  | 7432 tons                                   | 7779 tons                    |
| 4 | 2393 | B | An integral part of a blowout preventer that serves as the closing element on an open hole, and whose ends do not fit around the drill pipe but seal against each other and shut off the space below completely is the _____.   | shear ram   | blind ram  | pipe ram                                    | annular ram                  |
| 4 | 2394 | C | Your vessel's drafts are FWD 24'-09", AFT 27'-01". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 122 tons are discharged 76 feet aft of amidships, 128 tons are discharged 54 feet forward of amidships, and 68 tons of fuel is pumped 48 feet aft. | FWD 24'-01", AFT 26'-08"  | FWD 24'-02", AFT 26'-11"                                       | FWD 24'-04", AFT 26'-08"                    | FWD 24'-05", AFT 26'-02"     |
| 4 | 2395 | A | A negative metacentric height _____.  | should always be immediately corrected                          | will always cause a vessel to capsize                          | always results from off-center weights      | All of the above are correct |
| 4 | 2396 | B | Your vessel's drafts are: FWD 17'-05", AFT 20'-01"; and the KG is 25.6 feet. What is the righting moment when the vessel is inclined to 45°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)  | 18,294 foot-tons  | 19,709 foot-tons   | 21,137 foot-tons                            | 22,002 foot-tons             |
| 4 | 2397 | D | Proper GMDSS watchkeeping includes _____.   | monitoring all required frequencies in the proper mode          | reading all displays and/or printouts after silencing an alarm | notifying the Master of any distress alerts | All of the above             |
| 4 | 2398 | D | Proper GMDSS watchkeeping includes _____.   | understanding the GMDSS console's normal operational indicators | maintaining a proper GMDSS radio station log                   | responding to and comprehending alarms      | All of the above             |
| 4 | 2399 | C | Sixty (60) tons of cargo are raised with a heavy lift boom 45 feet from the centerline. The vessel's displacement including the weight lifted is 18,400 tons. The angle of list caused by the suspended weight is 1.5°, KM is 28.75 ft., and BM is 17.25 ft. What is the KG?  | 11.65 feet  | 22.85 feet   | 23.15 feet                                  | 23.82 feet                   |

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| 4 | 2400 | B | You are transferring a cargo of ethyl chloride and a small amount spills into the water around your vessel. The Chemical Data Guide indicates that the solubility of ethyl chloride in water will be _____.   | negligible                             | slight   | moderate   | complete   |
| 4 | 2401 | B | A high-velocity fog stream can be used in fire fighting situations to drive heat and smoke ahead of the fire fighters in a passageway. This technique should only be used when _____.   | using a 2-1/2 inch hose                | there is an outlet for the smoke and heat                        | the fire is totally contained by the ship's structure              | at least two fog streams can be used   |
| 4 | 2402 | D | How should the lifeboat sea painter be rigged?  | Spliced into the ring on the stem post | Secured by a toggle around the outboard side of a forward thwart | Secured by a toggle to the stem post and led outboard of the falls | Secured to the inboard side of the forward thwart and led inboard of the falls |
| 4 | 2403 | B | A frame with two, or sometimes four, arms through which are threaded the guidelines and which is used to keep the drill stem and bit in line with the center opening in the temporary guide base is the _____.  | drill stem guide                       | guide frame  | drill string frame   | casing guide   |
| 4 | 2404 | A | Regulations require that cargo tanks carrying grades D or E liquids on tank barges be vented with _____.  | gooseneck vents and flame screens      | pressure-vacuum relief valves                                    | branch vent lines and a vent header                                | forced draft blowers   |
| 4 | 2405 | C | The heavy three-, four-, or six-sided length of pipe suspended from the swivel through the rotary table and connected to the topmost joint of drill pipe to turn the drill stem as the rotary table turns is called the _____.  | swivel                                 | bail   | kelly  | cock   |
| 4 | 2406 | C | Your vessel is limited to a maximum draft of 26'-03". The present drafts are: FWD 22'-10", AFT 23'-08". How much more cargo can be loaded and where should it be located if a drag of 18 inches is desired? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 875 tons 6 feet aft of amidships       | 950 tons 8 feet forward of the tipping center                    | 1323 tons 7 feet aft of the tipping center                         | 1452 tons 7 feet aft of the tipping center                                     |
| 4 | 2408 | D | If your asphalt barge has operated more than 12 months in saltwater in the 24 month period since it was last dry-docked, when is it required to be hauled out again?  | 12 months since last dry-docking       | 18 months since last dry-docking                                 | 24 months since last dry-docking                                   | 36 months since last dry-docking   |

|   |      |   |   |  |   |  |                   |         |
|---|------|---|---|--|---|--|-------------------|---------|
| 4 | 2409 | B | Your vessel's drafts are: FWD 14'-04", AFT 15'-02"; and the KG is 23.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.0 foot off the centerline. | 9°   | 12°   | 15°  | 17°               |         |
| 4 | 2410 | C | Grade A flammable liquids are those with a Reid vapor pressure of _____.  | 5 to 8 1/2 psia  | more than 8 1/2 psia but less than 14 psia                          | 14 psia or more                                    | None of the above |         |
| 4 | 2411 | C | The storage device for nitrogen-pressurized hydraulic fluid, which is used in closing the blowout preventers is called the _____.   | actuator   | annulus   | accumulator  | annular preventer |         |
| 4 | 2412 | A | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 5 hold floods, the vessel will sink if the permeability exceeds what percent?                           | 66%  | 70%   | 74%  | 79%               |         |
| 4 | 2413 | D | Signaling by flag hoist is completed by the vessel hoisting the _____.  | signal AR  | code flag N   | code flag R  | answering pennant |         |
| 4 | 2414 | B | The flash point of a product is 100°F. What can happen if it is heated above 110°F?   | It will boil off to the atmosphere.  | It may burn and explode if an ignition source is present.           | It will become less volatile and easier to handle. | None of the above |         |
| 4 | 2415 | A | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.                                    | 1171.5 tons  | 1311.0 tons   | 1503.0 tons  | 1710.5 tons       | ST-0062 |
| 4 | 2416 | C | Which statement is TRUE?  | GMDSS radio logs are required to contain entries pertaining to all incidents connected to radio communication service which appear to be of importance to the safety of life at sea. | All distress communications must be entered in the GMDSS radio log. | Both of the above                                  | None of the above |         |

|   |      |   |  |  |  |  |   |  |
|---|------|---|--|--|--|--|---|--|
| 4 | 2417 | D | Which statement is TRUE?   | Key letters or abbreviations may not be used in GMDSS radio logbooks under any circumstance. | Urgency communications do not need to be entered in the GMDSS radio log. | Both of the above  | None of the above   |  |
| 4 | 2418 | D | Your vessel's drafts are: FWD 24'-07", AFT 25'-09"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 45°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 27,008 foot-tons   | 29,778 foot-tons   | 32,428 foot-tons   | 34,663 foot-tons  |  |
| 4 | 2419 | C | Where should the GMDSS radio log be kept on board ship?  | In the Captain's office  | In the sea cabin   | At the GMDSS operating position  | Anywhere on board the vessel  |  |
| 4 | 2420 | A | What is an example of a grade A flammable liquid?  | iso - Propylamine  | Acetone  | Morpholine   | Ethyl acetate   |  |
| 4 | 2421 | A | How many degrees are there on a compass card?  | 360°   | 380°   | 390°   | 420°  |  |
| 4 | 2422 | A | What is the threshold limit value (TLV) for a product of PHTHALIC ANHYDRIDE?   | 1 ppm  | 2 ppm  | 3 ppm  | 4 ppm   |  |
| 4 | 2423 | A | A large valve, usually installed above the ram preventers, that forms a seal in the annular space between the pipe and wellbore or, if no pipe is present, on the wellbore itself is called the _____.                                       | annular blowout preventer  | annulus  | accumulator  | automatic choke   |  |
| 4 | 2424 | B | Which statement pertaining to log keeping is TRUE?   | Entries relating to pre-voyage, pre-departure and daily tests are required                   | Both A and C   | All Distress, Urgent and Safety communications that affect the station's own ship must be logged | Routine daily MF-HF and INMARSAT-C transmissions do not have to be logged |  |
| 4 | 2425 | C | Every seaman injured on a fishing vessel must report the injury to the Master, individual in charge, or other agent of the employer _____.   | before the end of the voyage   | no later than 24 hours after the vessel docks                            | no later than 7 days after the injury occurred   | only if the injury prevents him from working                              |  |
| 4 | 2426 | A | Your vessel's drafts are: FWD 17'-05", AFT 20'-01"; and the KG is 22.4 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 10,656 foot-tons   | 12,340 foot-tons   | 13,980 foot-tons   | 17,520 foot-tons  |  |
| 4 | 2427 | C | What is the female section of a tool joint called?   | Stem   | Pin  | Box  | Stand   |  |

|   |      |   |   |                          |                          |                          |                          |  |
|---|------|---|---|--------------------------|--------------------------|--------------------------|--------------------------|--|
| 4 | 2428 | A | What is the flash point of iso - Hexane?  | -10°Fahrenheit           | 20°Centigrade            | 68°Fahrenheit            | 152°Centigrade           |  |
| 4 | 2429 | B | A vessel trimmed by the stern has a _____.  | list                     | drag                     | set                      | sheer                    |  |
| 4 | 2430 | D | What is an example of a grade A flammable liquid?   | Ethylene dibromide       | Methyl alcohol           | Nonyl phenol             | Pentane                  |  |
| 4 | 2431 | C | A device used to enlarge the size of an existing bore hole, having teeth arranged on its outside circumference to cut the formation as it rotates is a(n) _____.  | enlarger bit             | casing bit               | hole opener              | casing opener            |  |
| 4 | 2432 | C | You are loading propanolamine and spill a small quantity on deck. According to the Chemical Data Guide, you would expect its odor to be _____.  | sweet                    | similar to turpentine    | fishy                    | similar to ammonia       |  |
| 4 | 2433 | A | The pipe and special fittings used on floating offshore drilling rigs to establish a connection between the top of the wellbore, which is on the ocean floor, and the drilling equipment, located above the surface of the water, is called a _____.  | marine riser pipe        | marine casing            | guide pipe               | guide base casing        |  |
| 4 | 2434 | D | Your vessel's drafts are: FWD 14'-11", AFT 16'-01"; and the KG is 24.4 feet. What is the righting moment when the vessel is inclined to 30°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)  | 24,960 foot-tons         | 22,870 foot-tons         | 20,360 foot-tons         | 18,240 foot-tons         |  |
| 4 | 2435 | B | The joint of the riser in a marine riser system that compensates for heave, the up-and-down motion of a floater, is the _____.  | flex joint               | slip joint               | heave joint              | riser joint              |  |
| 4 | 2436 | B | Your vessel's drafts are FWD 20'-09", AFT 21'-01". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if: (1) 320 tons are loaded 47 feet forward of amidships; (2) 82 tons are discharged 110 feet forward of amidships; and (3) 50 tons of fuel are pumped 60 feet forward. | FWD 21'-05", AFT 21'-00" | FWD 21'-06", AFT 21'-02" | FWD 21'-04", AFT 21'-05" | FWD 21'-04", AFT 21'-06" |  |
| 4 | 2437 | A | A heavy steel device that is set on the sea floor and used as a drilling template in offshore drilling operations is called a _____.  | temporary guide base     | permanent guide base     | guide frame              | foundation template      |  |

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| 4 | 2438 | A | Your vessel's drafts are FWD 20'-08", AFT 23'-00". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 95 tons of cargo are loaded 76 feet forward of amidships. | FWD 21'-01", AFT 22'-11"  | FWD 20'-09", AFT 22'-09"   | FWD 20'-09", AFT 23'-01"   | FWD 20'-08", AFT 23'-00"   |         |
| 4 | 2439 | C | If you observe any situation which presents a safety or pollution hazard during fuel transfer operations which action should you take FIRST?   | Close the valves at the manifold.   | Notify the person in charge of the shore facility.   | Shut down the operation.   | Sound the general alarm.   |         |
| 4 | 2440 | C | According to the Chemical Data Guide, what does ethyl chloride produce when ignited?   | Toxic fumes of oxides of nitrogen   | Toxic fumes of lead  | Poisonous phosgene gas   | Poisonous chlorine gas   |         |
| 4 | 2441 | C | A set of clamps that are latched onto the drill pipe to allow the driller to raise or lower the drill string out of or into the hole are the _____.  | lifts   | collars  | elevators  | clamps   |         |
| 4 | 2442 | A | The international shore connection _____.  | allows hook up of fire fighting water from shore facilities   | satisfies pollution prevention requirements  | allows emergency use of the fire main for deballasting   | permits discharge of waste oil to shore facilities   |         |
| 4 | 2443 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 4.0 feet  | 5.6 feet   | 6.0 feet   | 6.8 feet   | ST-0063 |
| 4 | 2444 | B | When sending a DSC call, the vessel's _____.   | position will automatically be sent   | position will automatically be sent if the vessel is sending a "Distress Hot Key" alert  | MMSI will indicate its ocean region  | None of the above  |         |
| 4 | 2445 | C | What does the DSC control unit do if the GMDSS Radio Operator fails to insert updated information when initiating a DSC distress alert?  | It will abort the transmission and set off an audible alarm that must be manually reset.                | It will initiate the DSC distress alert but, as no information will be transmitted, rescue personnel will not be able to identify the vessel, its position or its situation. | It will initiate the DSC distress alert and default information will automatically be transmitted. | It will initiate the DSC distress alert, but any station receiving it will have to establish contact with the distressed vessel to determine its identity, position and situation. |         |
| 4 | 2446 | C | If a GMDSS radio operator initiates a DSC distress transmission but does not insert a message, what happens?   | The transmission is aborted and an alarm sounds to indicate this data must be provided by the operator. | The transmission is not initiated and "ERROR" is indicated on the display readout.   | The transmission will be made with "default" information provided automatically.                   | The receiving station will poll the DSC unit of the vessel in distress to download the necessary information   |         |



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| 4 | 2447 | B | The connected joints of pipe, usually made of three joints of pipe approximately 90 feet long, racked in the derrick when making a trip are called a _____.  | string           | stand            | joint             | standpipe         |
| 4 | 2448 | C | A person on a fixed or floating platform engaged in oil exploration MAY discharge food waste into the sea when the distance from the nearest land is at least _____.   | 3 nautical miles | 5 nautical miles | 12 nautical miles | 25 nautical miles |
| 4 | 2449 | B | You are loading epichlorohydrin onto your barge. According to the Chemical Data Guide, you could expect to detect a leak by smell if the concentration in air was at least _____.  | 2 ppm            | 10 - 25 ppm      | 40 ppm            | 105 ppm           |
| 4 | 2450 | B | During transfer operations, ethyl chloride spills into the water. According to the Chemical Data Guide, the ethyl chloride will boil off if the water temperature is above _____.  | 46°F             | 54°F             | 60°F              | 68°F              |
| 4 | 2451 | A | The end of the joint with the exterior threads is called the _____.  | pin              | stem             | box               | stand             |
| 4 | 2452 | C | Your vessel's drafts are: FWD 22'-03", AFT 22'-09"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 30°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 20,790 foot-tons | 23,780 foot-tons | 25,520 foot-tons  | 27,260 foot-tons  |
| 4 | 2453 | C | A tool consisting of a handle and releasable chain used for turning pipe or fittings of a diameter larger than that which a pipe wrench would fit is called _____.   | breakout wrench  | makeup tongs     | chain tongs       | pipe spinner      |
| 4 | 2454 | D | In order to determine the fire and explosion hazard data for naphtha, you would use that information contained in the Chemical Data Guide for which chemical?  | Treacle          | Napthalene       | Tar camphor       | Mineral spirits   |
| 4 | 2455 | A | The element used to keep weight on the bit at a constant value in spite of up-and-down movement of a MODU during floating drilling operations is the heave or drill string _____.  | compensator      | tensioner        | stabilizer        | equalizer         |
| 4 | 2456 | B | According to the Chemical Data Guide, epichlorohydrin is a(n) _____.   | corrosive        | class B poison   | oxidizer          | explosive         |
| 4 | 2457 | A | What is a grooved pulley?  | Sheave           | Slip             | Block             | Reeve             |

|   |      |   |   |  |   |   |  |         |
|---|------|---|---|--|---|---|--|---------|
| 4 | 2458 | C | To find the product Valeral in the Chemical Data Guide, you would have to look up the product _____.  | Acrylic acid   | iso-Valeraldehyde   | n-Valeraldehyde   | Vinyl acetate  |         |
| 4 | 2459 | B | A virtual rise in the center of gravity may be caused by _____.   | filling a partially filled tank                                  | using fuel from a pressed fuel tank                               | emptying a partially filled tank  | transferring ballast from the forepeak to the after peak                 |         |
| 4 | 2460 | C | During transfer operations, a quantity of propylamine spills on deck. According to the Chemical Data Guide, the correct procedure would be to _____.  | immediately flush the spill with large quantities of fresh water | cover the contaminated surface with soda-ash-soaked lime solution | add sodium bisulfate on the contaminated surface and spray it down with water | move to a position upwind of the spill and allow the product to boil off |         |
| 4 | 2461 | C | A special device that, when fitted into the rotary table, transmits torque to the kelly and simultaneously permits vertical movement of the kelly to make the hole is called a _____.   | master bushing   | kelly slips   | kelly bushing   | rotary bushing   |         |
| 4 | 2462 | A | If a leak occurred while loading diethylenetriamine, the chemical data guide indicates you would smell an odor similar to _____.  | ammonia  | rotten eggs   | gasoline  | None of the above  |         |
| 4 | 2463 | D | A heavy, thick-walled tube, usually steel, used between the drill pipe and the bit in the drill stem to weight the bit in order to improve its performance is called a _____.   | heavy-walled drill pipe  | tool joint  | down hole tool  | drill collar   |         |
| 4 | 2464 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 3.9 feet   | 4.3 feet  | 4.7 feet  | 5.1 feet   | ST-0064 |
| 4 | 2465 | A | The element that supports the weight of the drill stem, allows the drill stem to rotate, and provides a pressure-tight seal and passageway for the drilling mud to be pumped down the inside of the drill stem is called the _____. | swivel   | bail  | kelly   | cock   |         |
| 4 | 2466 | C | According to regulations, access to a cargo pumproom in a tank vessel carrying grades C or D liquid cargo shall be _____.   | from areas equipped with power ventilation                       | only from enclosed areas free from sources of vapor ignition      | from the open deck  | from within the vessel   |         |
| 4 | 2467 | C | To prevent the riser system from buckling under its own weight, upward tension is provided by the _____.  | riser stabilizers  | guideline tensioning system                                       | riser tensioning system   | guideline stabilizers  |         |
| 4 | 2468 | C | What is NOT classified as a flammable liquid?   | Methyl alcohol   | Heptane   | Mineral spirits   | iso-Hexane   |         |

|   |      |   |   |  |  |   |  |  |
|---|------|---|---|--|--|---|--|--|
| 4 | 2469 | B | According to the regulations, cargo pumprooms on tank vessels (constructed in 1965) handling grade C liquid cargo shall have power ventilation systems which can completely change the air in _____.                                  | 1 minute   | 3 minutes  | 5 minutes   | 10 minutes   |  |
| 4 | 2470 | C | According to the Chemical Data Guide, propylene oxide is assigned a health hazard rating of 3,2,2. The last digit "2" of the rating means _____.  | chemical vapors will cause a slight smarting of the eyes or respiratory system if present in high concentrations | the chemical contains fairly severe skin irritants, causing second- and third-degree burns after a few minutes contact | the chemical poison presents some hazard if it enters the body and typically has threshold limits of 100 to 500 ppm | the chemical is severely hazardous, usually having threshold limits below 10 ppm |  |
| 4 | 2471 | D | The device that allows a floating MODU to sway without bending the marine riser system is the _____.  | yaw joint  | sway joint   | slip joint  | flex or ball joint   |  |
| 4 | 2472 | D | Which cargo grade(s) are permitted by regulations to be carried on a barge in tanks fitted only with gooseneck vents and flame screens?   | B only   | B or C   | C or D  | D or E   |  |
| 4 | 2473 | C | In very deep water drilling, it becomes necessary to reduce tension caused by the weight of the riser joints. This is accomplished by using a(n) _____.   | aluminum riser   | tapered riser  | buoyant riser   | intermediate tensioner   |  |
| 4 | 2474 | D | Your vessel's drafts are FWD 19'-03", AFT 21'-07". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 142 tons of cargo are loaded 86 feet forward of amidships. | FWD 18'-09", AFT 21'-04"   | FWD 18'-10", AFT 21'-01"   | FWD 19'-10", AFT 21'-08"  | FWD 19'-11", AFT 21'-04"   |  |
| 4 | 2475 | A | Your fishing vessel is required to have a compass. It must also have a(n) _____.  | deviation table  | radar reflector  | electronic position-fixing device   | copy of the Sailing Directions   |  |
| 4 | 2476 | D | Which tank barges require draft marks?  | Notch barges over 1000 GT  | Tank barges over 100 GT  | Tank barges over 50 GT  | All tank barges  |  |
| 4 | 2478 | B | Depending on its concentration, which product(s) can be classified as either grade D or E?  | Sulfuric acid  | Formaldehyde solutions 37% to 50%  | 1,1,1-trichloroethane   | All of the above   |  |
| 4 | 2479 | A | Coast Guard regulations require a shipboard Oil Pollution Emergency Plan to be reviewed _____.  | annually   | once every two years   | once every four years   | once every five years  |  |
| 4 | 2480 | B | According to the Chemical Data Guide, what is NOT a recommended extinguishing agent for an ethyl chloride fire?   | CO2  | Alcohol foam   | Dry chemical  | Water fog  |  |

|   |      |   |   |  |   |  |   |         |
|---|------|---|---|--|---|--|---|---------|
| 4 | 2481 | D | Which action should be taken on receipt of a GMDSS Distress alert?  | Read the display screen and/or printout.   | Silence the alarm.                                    | Listen for any follow up voice/TELEX transmission on the appropriate frequency.                        | All of the above  |         |
| 4 | 2482 | C | If a cargo of kerosene were considered "too lean" to explode, then it must be _____.  | above the "explosive range"  | within the "explosive range"                          | below the "explosive range"  | None of the above   |         |
| 4 | 2483 | A | You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.  | cubic meters   | both cubic meters and cubic feet                      | both kilos and pounds  | barrels of 55 gallon capacity   |         |
| 4 | 2484 | C | Who may approve cargo piping to pass through a machinery space for a barge designed to carry only grade E products?                                   | American Bureau of Shipping  | National Cargo Bureau                                 | Commandant, U.S. Coast Guard   | Vessel owner  |         |
| 4 | 2485 | C | A drilling bit which is doughnut shaped to permit recovery of the center portion of the hole drilled is called a _____.                               | diverter bit   | hole reamer   | core bit   | conventional bit  |         |
| 4 | 2486 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM. | Available GM 5.0 ft  | Available GM 5.4 ft                                   | Available GM 6.1 ft  | Available GM 6.8 ft   | ST-0065 |
| 4 | 2487 | A | The wire ropes of the riser tensioning system are attached to the _____.  | outer barrel of the telescoping joint  | inner barrel of the telescoping joint                 | marine riser connector   | ball joint  |         |
| 4 | 2488 | C | If a crew member is exposed to phenol by way of skin or eye contact, you should IMMEDIATELY _____.  | administer oxygen  | treat victim for shock                                | flush skin and eyes with water   | give victim stimulant   |         |
| 4 | 2489 | D | According to the Chemical Data Guide, which extinguishing agent should be used on a petrolatum fire in an open area?                                  | CO2  | Dry chemical  | Monoxide powders   | Foam  |         |
| 4 | 2490 | D | Which extinguishing agent is effective in combating an isoprene fire?   | Dry chemicals  | CO2   | Foam   | All the above   |         |
| 4 | 2491 | D | The platform that supports the derrickman when tripping pipe is called the _____.   | Texas deck   | water table   | stabbing board   | monkey board  |         |
| 4 | 2492 | D | At sea, you are approaching a small vessel and see that it has the signal flag "P" hoisted. What should you do?                                       | Proceed on present course and speed since the vessel is stopped and making no way through the water. | Keep clear of the vessel because it has a diver down. | Attempt to call the vessel on VHF radiotelephone because someone on board requires medical assistance. | Approach with caution because the vessel is a fishing vessel and its nets are fouled on an obstruction. |         |

|   |      |   |  |   |  |   |  |         |
|---|------|---|--|---|--|---|--|---------|
| 4 | 2493 | B | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 1171.5 tons                             | 1311.0 tons  | 1503.0 tons   | 1710.5 tons  | ST-0066 |
| 4 | 2494 | A | An example of a grade C product is _____.  | naphtha, vm and p                       | tridecanol   | cottonseed oil  | camphor oil  |         |
| 4 | 2495 | A | A series of trays with sieves that vibrate to remove cuttings from the circulating fluid in rotary drilling operations is called the _____.  | shale shaker                            | settling pit   | desilter  | desander   |         |
| 4 | 2496 | B | What type of vent system would a barge of acrylonitrile have?  | Open                                    | Pressure-vacuum  | Safety relief   | Rupture disk   |         |
| 4 | 2497 | C | In MODU drilling operations, the term tripping means _____.  | releasing the tongs from the drill pipe | welding hard metal to tool joints                          | hoisting drill pipe out of and returning it to the wellbore | sliding a joint of drill pipe down to the pipe rack ramp |         |
| 4 | 2498 | A | Which product is volatile?   | Benzene                                 | Diesel fuel  | Coal tar  | Heavy industrial fuel oil                                |         |
| 4 | 2499 | D | What is an example of a grade B flammable liquid?  | Allyl alcohol                           | Phenol   | Acetaldehyde  | Carbon disulfide   |         |
| 4 | 2500 | D | According to the Chemical Data Guide, which extinguishing agent is NOT recommended for use in fighting an ethylamine fire?   | Alcohol foam                            | Carbon dioxide   | Dry chemical  | Water fog  |         |
| 4 | 2501 | D | The SS NORTHLAND is loaded to drafts: FWD 20'-06", AFT 24'-00". The KG is 29.6 feet. Use the salmon pages of the Stability Data Reference Book to determine the angle of list if #6 starboard tank is fully loaded with 1624 tons of salt water ballast (VCG is 36.5 feet off the centerline). | 3.4°                                    | 4.2°   | 4.9°  | 6.0°   |         |
| 4 | 2502 | B | The international shore connection _____.  | permits discharge of waste oil          | allows hook up of fire hoses from a dock or another vessel | satisfies pollution prevention requirements                 | allows emergency use of the fire main for deballasting   |         |
| 4 | 2504 | C | A reinspection of the vessel shall be made between which of the following months while the Certificate of Inspection is valid?   | 8 - 12 months                           | 10 - 12 months   | 10 - 14 months  | 12 - 14 months   |         |
| 4 | 2505 | B | The helicopter deck of a MODU must be marked with the units identification, appropriate aiming circles, and a continuous line on the perimeter which is _____.   | 8 inches wide                           | 16 inches wide   | 24 inches wide  | 32 inches wide   |         |

|   |      |   |  |                               |                                       |   |   |         |
|---|------|---|--|-------------------------------|---------------------------------------|---|---|---------|
| 4 | 2506 | D | Grade E combustible liquids are those having flash points of _____.  | 80°F or less                  | greater than 80°F and less than 115°F | greater than 115°F and less than 150°F      | 150°F or greater                            |         |
| 4 | 2507 | B | When using a crane for transferring personnel in a basket, the load hook must be equipped with a _____.  | moused shackle                | safety latch                          | safety belt for each rider                  | quick-release device                        |         |
| 4 | 2508 | D | What is the TLV of cyclohexanol?   | 20 ppm                        | 30 ppm                                | 40 ppm                                      | 50 ppm                                      |         |
| 4 | 2509 | A | How many portable fire extinguishers are required in the cargo tank area of an unmanned tank barge during cargo transfer, if the barge has no cargo pumps of her own?  | One                           | Two                                   | Three                                       | None  |         |
| 4 | 2510 | C | Camphor oil is classified as a _____.  | Grade A flammable liquid      | Grade C flammable liquid              | Grade D combustible liquid                  | Grade E combustible liquid                  |         |
| 4 | 2511 | A | When lowering a personnel net to pick up personnel from a boat, the personnel basket should be _____.  | lowered over open water       | tied to the vessel with a tag line    | dropped in the water                        | tied to the rig with a tag line             |         |
| 4 | 2512 | B | Which of the following product(s) would be classified as grade E?  | Gasoline                      | Bunker C                              | Kerosene                                    | All of the above                            |         |
| 4 | 2513 | C | The maximum number of personnel allowed on a personnel transfer basket is _____.   | 2                             | 3                                     | 4   | 5   |         |
| 4 | 2514 | C | Your vessel's drafts are: FWD 14'-11", AFT 16'-01"; and the KG is 23.2 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 5,800 foot-tons               | 7,600 foot-tons                       | 9,272 foot-tons                             | 11,200 foot-tons                            |         |
| 4 | 2515 | A | Before personnel are lifted from a vessel in a personnel basket, the vessel should be _____?   | directly under the boom       | moving away from the boom             | stopped dead in the water                   | tied to the boom                            |         |
| 4 | 2516 | B | When heated to breakdown, tetraethyl or tetramethyl lead compounds emit highly toxic fumes of _____.   | hydrogen gas                  | lead                                  | bromide                                     | phosgene                                    |         |
| 4 | 2517 | D | When may a personnel net be used to bring heavy equipment aboard an offshore drilling unit?  | Only when the seas are calm   | Only during rough weather             | Only when there are no personnel in the net | Never                                       |         |
| 4 | 2518 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 4.0 feet                      | 5.6 feet                              | 6.0 feet                                    | 6.8 feet                                    | ST-0067 |
| 4 | 2519 | A | What are the venting requirements for a barge with a cargo of adiponitrile?  | Pressure-vacuum relief valves | Open venting                          | Gooseneck vents fitted with flame screens   | Closed venting with a vapor recovery system |         |

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|---|------|---|--|---|---|---|--|---------|
| 4 | 2520 | C | According to the Chemical Data Guide, which material is not compatible with vinylidene chloride (inhibited)?   | Aluminum                                  | Nickel  | Copper or copper alloys                                 | Stainless steel  |         |
| 4 | 2521 | A | To enable tying down a helicopter on the landing area of a MODU, the landing deck must be fitted with _____.   | recessed tie down points                  | hydraulically lifted bits                               | air tuggers   | fixed cleats   |         |
| 4 | 2522 | B | What best describes benzene?   | Clear colorless liquid with an acrid odor | Clear colorless liquid with an aromatic odor            | Brownish liquid, odorless                               | Brownish liquid, with an acrid odor                      |         |
| 4 | 2523 | A | How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 2000 brake horsepower?  | 2   | 3   | 4   | 5  |         |
| 4 | 2524 | D | What characteristic determines when a grade "C" product will start to vaporize?  | Its filling density                       | Its ignition point                                      | The flammable range                                     | Its flash point  |         |
| 4 | 2525 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 5.26 ft                      | Available GM 4.24 ft                                    | Available GM 4.11 ft                                    | Available GM 4.01 ft                                     | ST-0068 |
| 4 | 2526 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 4.2 ft                       | Available GM 3.9 ft                                     | Available GM 3.7 ft                                     | Available GM 3.5 ft                                      | ST-0069 |
| 4 | 2527 | C | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 1171.5 tons                               | 1311.0 tons   | 1503.0 tons   | 1710.5 tons  | ST-0070 |
| 4 | 2528 | B | Which action should you take after sending a false Distress alert on VHF?  | Send a DSC cancellation message on Ch-70. | Make a voice announcement to cancel the alert on Ch-16. | Make a voice announcement to cancel the alert on Ch-13. | Make a voice announcement to cancel the alert on Ch-22A. |         |
| 4 | 2529 | C | What is a grade B flammable liquid?  | Ethylene oxide                            | Paraldehyde   | Chlorallylene   | Allyl alcohol  |         |
| 4 | 2530 | B | Regulations require that cargo pumprooms on tank barges (constructed in 1965) carrying grades B or C liquid cargoes have power ventilation systems which can completely change the air in _____.                                   | 1 minute                                  | 3 minutes   | 5 minutes   | 10 minutes   |         |

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|---|------|---|--|--|---|---|--|--|
| 4 | 2531 | D | What is the fundamental purpose for imposing radio silence?  | To ensure that interference to proprietary communications is minimized | To ensure that only voice communications can be effected on the distress frequency or channel | To ensure that a distressed vessel will have a "window" twice each hour for transmitting routine messages | To ensure that interference on a particular frequency or channel to communications concerning emergency traffic is minimized |  |
| 4 | 2532 | D | The appearance of Bunker C and fuel oils are dark colored liquids, and _____.  | soluble oils   | slop oils   | cutting oils  | viscous oils   |  |
| 4 | 2533 | A | An obstruction on a helodeck is any object that might present a hazard to the _____.   | rotor blades and landing gear  | unloading of passengers   | loading of cargo  | pilot's visibility   |  |
| 4 | 2534 | A | According to the Chemical Data Guide, which reactive group(s) is/are not compatible with the products polybutene and o-xylene?   | Nitric acid  | Amides  | Alcohols, glycols   | Phenols, cresols   |  |
| 4 | 2535 | A | The connection facilities for the international shore connection must be located to provide access _____.  | to each side of the vessel   | as close as possible to the house   | on the main deck  | on each level of the accommodation space   |  |
| 4 | 2536 | C | To prevent the spread of fire by conduction you should _____.  | shut off all electrical power  | close all openings to the area  | cool the bulkheads around the fire  | remove combustibles from direct exposure   |  |
| 4 | 2537 | C | Which statement(s) is(are) TRUE regarding heaving-to?  | A sloop will heave to with her jib and mainsail aback.                 | A ketch will heave to with her jib and mizzen aback.  | A yawl will heave to with her jib aback, main sheet eased, and her mizzen sheeted in.                     | All of the above are correct.  |  |
| 4 | 2538 | D | According to the Chemical Data Guide, fuel oil number 6 has a flash point (degrees F) of _____.  | 65   | 80 - 100  | 110 - 140   | 150 - 430(cc)  |  |
| 4 | 2539 | D | If you came into contact with nitrobenzene while disconnecting the cargo hose, you should be aware that it is _____.   | highly toxic when absorbed through the skin                            | a blood poison  | a nerve poison  | All of the above   |  |
| 4 | 2540 | C | The MINIMUM ventilation requirements for pumprooms on tank vessels (constructed in 1960) carrying grades B or C liquid cargo with machinery spaces located below the freeboard deck specify _____. | gooseneck vents and flame screens                                      | that it be connected to a vent header system  | that it be power ventilation  | that it be fitted with at least two ducts extended to the weather deck   |  |
| 4 | 2541 | A | When lifting loads from a boat in heavy weather, the load should be taken when the boat _____.   | reaches the crest  | begins to fall  | begins to rise  | reaches the trough   |  |



|   |      |   |  |   |                                |                                  |                                     |  |
|---|------|---|--|---|--------------------------------|----------------------------------|-------------------------------------|--|
| 4 | 2542 | C | Your vessel's drafts are: FWD 21'-08", AFT 24'-02". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 15 inches? (Use the selected stability curves in Section 1, the blue pages, of the Stability Data Reference Book) | 72 tons                                     | 77 tons                        | 82 tons                          | 87 tons                             |  |
| 4 | 2543 | A | The boom stops are installed on an offshore crane to _____.  | prevent the boom from being raised too high | prevent the boom from swinging | support the boom when not in use | prevent the boom from being lowered |  |
| 4 | 2544 | D | Triethylene glycol fires may be extinguished by _____.   | dry chemical                                | alcohol foam                   | carbon dioxide                   | All of the above                    |  |
| 4 | 2545 | B | On a MODU crane, the boom indicator tells the operator what the boom angle is compared to the _____.   | vertical position                           | horizontal position            | boom stop angle                  | minimum radius angle                |  |
| 4 | 2546 | B | Your vessel's drafts are: FWD 24'-07", AFT 25'-09"; and the KG is 24.0 feet. What is the righting moment when the vessel is inclined to 15°? (Use the selected stability curves in Section 1, the blue pages, of the Stability Data Reference Book)  | 5,202 foot-tons                             | 8,666 foot-tons                | 10,876 foot-tons                 | 11,424 foot-tons                    |  |
| 4 | 2547 | C | On a MODU crane, the load chart relates the allowable load to the combination of boom length and _____.  | boom angle                                  | boom strength                  | load radius                      | cable strength                      |  |
| 4 | 2548 | D | According to regulations, which grade(s) of cargo may be carried in tanks that are vented only with gooseneck vents and flame screens?   | B only                                      | B or C                         | C or D                           | D or E                              |  |
| 4 | 2549 | B | Vessels "A" and "B" are identical; however, "A" is more tender than "B". This means that "A" relative to "B" has a _____.  | lower KG                                    | smaller GM                     | smaller roll angle               | larger GZ                           |  |
| 4 | 2550 | B | According to regulations, how many B-II hand portable fire extinguishers are required in the cargo tank area of an unmanned, cargo pump-equipped tank barge engaged in transferring grade B flammable liquids?   | One   | Two                            | Three                            | None                                |  |
| 4 | 2551 | D | The load chart of a MODU crane enables the operator to combine the load radius with boom length to determine the _____.  | maximum counter weight required             | minimum horsepower required    | hoist rope strength              | allowable load                      |  |

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| 4 | 2552 | C | When can routine communications be resumed when radio silence has been imposed?   | After determining that the frequency or channel appears to be no longer in use  | After determining that geographic distance from the distress situation will prohibit any other signal from interfering with emergency communications | Routine communications can resume after the Rescue Coordination Center transmits a message on the frequency or channel being used for emergency communications stating that such traffic has concluded. | If, in the Master's opinion, communications on that frequency will interfere with emergency communications               |
| 4 | 2553 | A | What is meant by the term "radio silence"?  | Stations not directly involved with the ongoing Distress communications may not transmit on the distress frequency or channel | Stations remaining off the air to safeguard proprietary information  | Two three-minute silent periods, at 15 and 45 minutes after the hour, that provide a transmitting "window" for distressed vessels to transmit distress alerts using J3E                                 | Communications on a distress frequency or channel is banned for 24 hours following the cessation of the distress traffic |
| 4 | 2554 | A | How is "radio silence" imposed?   | By the On Scene Coordinator (OSC)   | By the Coast Earth Station (CES) controlling the Distress communications on that frequency   | It is imposed by the Public Correspondence Station (PCS) controlling the distress communications on that frequency or channel   | It is imposed by the High Seas Service (HSS) controlling the distress communications on that frequency or channel        |
| 4 | 2555 | C | When hoisting personnel from a vessel, with the MODU cranes, the crane operator must assure that _____.   | the personnel carrier remains directly over the vessel  | all personnel are inside the net type carrier  | the personnel carrier remains directly over water   | he does not swing the load until it is above the landing area  |
| 4 | 2556 | A | Regulations require that pumprooms on tank vessels carrying grade C liquid cargo with machinery spaces below the freeboard deck be ventilated with _____. | power ventilation   | gooseneck vents and flame screens  | at least two ducts extending to the weather deck  | a vent header system   |

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| 4 | 2557 | B | When transferring personnel with a MODU crane, the weight of the loaded personnel carrier must not exceed _____.  | 1/2 of the static rated load at the lift radius | 1/3 of the static rated load at the lift radius | 1/2 of the breaking strength of the hoist rope times the parts of line used     | 1/3 of the breaking strength of the hoist rope times the parts of line used  |  |
| 4 | 2558 | A | Grade C liquids are those having a Reid vapor pressure of _____.  | 8-1/2 psi or less                               | 8-1/2 psi or more                               | 14 psi or less  | 14 psi or more   |  |
| 4 | 2559 | C | What is NOT a grade B flammable liquid?   | tert-Butylamine                                 | Allyl chloride                                  | Ethyl chloride  | Carbon disulfide   |  |
| 4 | 2560 | C | Regulations require that cargo tanks in which grades B or C liquids are carried must be vented with which of the following?   | Gooseneck vents                                 | Flame screens                                   | Pressure vacuum relief valves   | Forced draft blowers   |  |
| 4 | 2561 | D | The weight of the loaded personnel carrier, when transferring personnel from a MODU with a crane, must not exceed _____.  | 2/3 of the static rated load at the lift radius | 1/2 of the static rated load at the lift radius | 1/5 of the breaking strength of the hoist rope times the parts of the line used | 1/10 of the breaking strength of the hoist rope times the parts of line used |  |
| 4 | 2562 | C | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 4000 brake horsepower?  | 2   | 3   | 4   | 5  |  |
| 4 | 2563 | B | The hoist line primarily used for lifting personnel on MODU cranes is called the _____.   | personnel line                                  | whip line                                       | main hoist line   | pendant  |  |
| 4 | 2564 | C | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability, and holds 1 and 2 flood, the vessel will sink if the permeability exceeds what percent? | 19  | 24  | 32  | 39   |  |
| 4 | 2565 | C | Annual inspection of MODU cranes shall be conducted by _____.   | U.S. Coast Guard                                | the person in charge                            | a qualified inspector   | the crane operator   |  |
| 4 | 2566 | D | LFG tank and pipeline maintenance should include _____.   | exclusion of all sand and solid matter          | cleaning with clean fresh or sea water          | examination for fractures and pitting   | All of the above   |  |
| 4 | 2567 | A | A MODU crane which has been idle for a period of over six months shall be inspected to the same standards as a _____.   | yearly inspection                               | quarterly inspection                            | monthly inspection  | weekly inspection  |  |
| 4 | 2568 | C | Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 21.3 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.                     | 0.3 foot  | 1.3 feet  | 1.5 feet  | 1.8 feet   |  |

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|---|------|---|--|--|---|--|--|--|
| 4 | 2569 | B | Your vessel's drafts are: FWD 22'-03", AFT 22'-09"; and the KG is 24.4 feet. What is the righting moment when the vessel is inclined to 15°? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 4,176 foot-tons  | 5,916 foot-tons   | 7,076 foot-tons  | 9,003 foot-tons  |  |
| 4 | 2570 | A | What is NOT a requirement of the reinspection for a tank barge with a certificate of inspection valid for two years?   | The reinspection will be made between the fourteenth and sixteenth months. | The inspector shall examine all accessible parts of the vessels's hull. | The inspector shall examine the vessel's machinery as well as equipment. | The scope of the reinspection shall be the same as for the inspection for certification, but in less detail. |  |
| 4 | 2571 | A | You have abandoned ship in rough weather. After picking up other survivors in your liferaft, what should you do next?  | Close up the entrances.  | Top up the buoyancy tubes.  | Prepare for the arrival of rescue units.                                 | Decide on food and water rations.  |  |
| 4 | 2572 | B | The radiotelephone urgency signal is _____.  | mayday   | pan pan   | securite   | seelonce feenee  |  |
| 4 | 2573 | C | Medical treatment aboard a MODU should not go beyond examination and emergency care without first consulting _____.  | the designated medic aboard  | the shore based superintendent  | a medical doctor   | the approved company medical manual  |  |
| 4 | 2574 | B | Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 60° inclination.                      | 0.9 foot   | 1.8 feet  | 2.7 feet   | 4.5 feet   |  |
| 4 | 2575 | C | The "urgent" priority should be used for messages _____.   | concerning the Safety of Life at Sea (SOLAS)                               | detailing important navigational warnings                               | containing information concerning the safety of a mobile unit or person  | concerning on-scene communications   |  |
| 4 | 2576 | A | When the GMDSS Radio Operator on watch hears "SECURITE" spoken three times he can expect to receive a message concerning _____.  | the safety of navigation or important meteorological warnings              | the safety of a vessel or a person is in jeopardy                       | a vessel in need of immediate assistance                                 | a coast station traffic list   |  |
| 4 | 2577 | A | The radiotelephone safety signal is _____.   | "Securite" repeated 3 times  | "Safety" repeated 3 times   | "Pan Pan" repeated 3 times   | "Securite Securite" repeated 3 times   |  |

|   |      |   |   |                                     |   |   |   |  |
|---|------|---|---|-------------------------------------|---|---|---|--|
| 4 | 2578 | C | Your vessel displaces 9,000 tons and has a KG of 21.2 feet. What will be the length of the remaining righting arm at an angle of inclination of 30° if the center of gravity shifts 2.6 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book) | 3.8 feet                            | 2.2 feet  | 1.4 feet  | 0.9 foot  |  |
| 4 | 2579 | B | What is the most appropriate action for a GMDSS Radio Operator to take in a distress situation where immediate help is needed, but the vessel is not sinking nor needs to be abandoned?   | Switch off EPIRB and SART manually. | Transmit Distress call by MF/HF, VHF or INMARSAT. | Notify the RCC (Rescue Coordination Center) through VHF FM on Channel 13. | Transmit Distress call by activating the radiotelegraph automatic alarm signal. |  |
| 4 | 2580 | A | If your JP-5 barge has operated in saltwater for less than 1 month in the 12 month period since it was last dry-docked, when is it required to be hauled out again?   | 60 months since last dry-docking    | 36 months since last dry-docking                  | 24 months since last dry-docking  | 12 months since last dry-docking  |  |
| 4 | 2581 | A | A continuous watertight bulkhead on a MODU is normally also a(n) _____.   | structural bulkhead                 | exterior bulkhead                                 | centerline bulkhead   | joiner bulkhead   |  |
| 4 | 2582 | D | When the height of the metacenter is the same as the height of the center of gravity, the metacentric height is equal to _____.   | the height of the metacenter        | the height of the center of gravity               | half the height of the metacenter   | zero  |  |
| 4 | 2584 | B | The grade C flammable liquid phenylethane is found in the Chemical Data Guide under the chemical name _____.  | ethyl cyanide                       | ethylbenzene                                      | ethyl acetate   | muriatic ether  |  |
| 4 | 2585 | B | Vertical partitions which provide strength and compartmentalization on a MODU are called _____.   | decks                               | bulkheads   | joiner work   | walls   |  |
| 4 | 2586 | C | To which group of hydrocarbons do Benzene and Toluene belong?   | Ketone                              | Caustic   | Aromatic  | Alcohol   |  |
| 4 | 2587 | A | Joiner bulkheads on a MODU provide _____.   | compartmentalization                | watertight integrity                              | structural support  | tank boundaries   |  |
| 4 | 2588 | B | Which extinguishing agent is recommended in the Chemical Data Guide for use on a carbon disulfide fire?   | Alcohol foam                        | Dry chemical                                      | Chemical foam   | Water fog   |  |
| 4 | 2590 | C | Regulations require that tank vessels handling grade B liquids shall have their cargo pumps separated from all sources of vapor ignition by _____.  | cofferdams                          | empty cargo spaces                                | gas tight bulkheads   | areas equipped with power ventilation   |  |
| 4 | 2591 | B | Structural bulkheads on a MODU are usually _____.   | continuous                          | watertight  | transverse  | non-watertight  |  |

|   |      |   |   |  |  |  |  |  |
|---|------|---|---|--|--|--|--|--|
| 4 | 2592 | B | Which signal is detected as originating from a SART?  | The Morse code distress series S-O-S repeated 3 times followed by DE and the vessel's call sign                    | A line of blip code on a radar screen outward from the SART's position along its line of bearing | A line of blip code on a radar screen inward from the SART's position to its own ship along its line of bearing          | None of these  |  |
| 4 | 2593 | C | Bulkheads which form part of the tanks on a MODU are stiffened to withstand _____.  | deck loads from above  | dynamic forces while afloat  | hydrostatic pressure   | over-pressurization  |  |
| 4 | 2594 | D | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 3 hold floods, the vessel will sink if the permeability exceeds what percent?   | 64   | 68   | 72   | 78   |  |
| 4 | 2595 | A | How can vessel personnel detect the operation of a SART in its vicinity?  | A unique radar signal consisting of a blip code radiating outward from a SART's position along its line of bearing | A unique two tone "warbling" signal heard on VHF-FM Ch-70  | A unique two tone alarm signal heard upon the automatic unmuting of the 2182 kHz radiotelephone automatic watch receiver | The SART signal appears as a target which comes and goes; the effect of heavy swells on the SART |  |
| 4 | 2596 | A | Drinking salt water will _____.   | dehydrate you  | prevent seasickness  | be safe if mixed with fresh water  | protect against heat cramps  |  |
| 4 | 2597 | C | Reinforcing frames attached to a bulkhead on a MODU are called _____.   | side longitudinals   | intercostals   | stiffeners   | brackets   |  |
| 4 | 2598 | D | A vessel displaces 12,000 tons and has a KG of 22.8 feet. What will be the length of the remaining righting arm at an angle of inclination of 60° if the center of gravity shifts 1.8 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book) | -1.6 feet  | -0.1 foot  | 1.2 feet   | 1.9 feet   |  |
| 4 | 2599 | A | Oil fires are best extinguished by _____.   | cutting off the supply of oxygen   | removing the fuel  | cooling below the ignition temperature   | spraying with water  |  |
| 4 | 2600 | B | If your Bunker-C barge has operated in salt water for more than 12 months in the 24 month period since it was last dry-docked, when is it required to be hauled out again?  | 36 months since last dry-docking   | 24 months since last dry-docking   | 18 months since last dry-docking   | 12 months since last dry-docking   |  |
| 4 | 2601 | A | In MODU construction, a greater number of watertight bulkheads results in _____.  | increased capacity to set flooding boundaries  | decreased capacity to set flooding boundaries  | reduced compartmentation   | greater deck load capacity   |  |

|   |      |   |   |  |  |  |   |         |
|---|------|---|---|--|--|--|---|---------|
| 4 | 2602 | D | In order to determine the health hazard data for carbolic acid, you would use that information contained in the Chemical Data Guide for which chemical?   | Acetic oxide                                       | Carbinol   | Carbon bisulfide   | Phenol  |         |
| 4 | 2603 | B | Where is the keel generally located on a MODU?  | Along the midships axis                            | Along the centerline of the lower hulls  | Along the roll axis of the hull  | Along the axis of rotation of the hull              |         |
| 4 | 2604 | A | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability, and holds 2 and 3 flood, the vessel will sink if the permeability exceeds what percent? | 37   | 31   | 26   | 23  |         |
| 4 | 2605 | C | Your vessel's drafts are FWD 24'-02", AFT 24'-04". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 295 tons of cargo are loaded 122 feet aft of amidships.          | FWD 22'-08", AFT 26'-00"                           | FWD 22'-10", AFT 25'-09"   | FWD 23'-04", AFT 26'-03"   | FWD 23'-05", AFT 25'-11"                            |         |
| 4 | 2606 | B | Which device provides the main means in the GMDSS for locating ships in distress or their survival craft?   | Radio direction finder                             | Satellite EPIRBs   | MF/HF DSC  | VHF homing device                                   |         |
| 4 | 2607 | A | The tendency of a grade "B" product to vaporize is indicated by its _____.  | flash point  | convection index   | flammable range  | ignition temperature                                |         |
| 4 | 2608 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 6.3 ft                                | Available GM 5.7 ft  | Available GM 5.3 ft  | Available GM 4.8 ft                                 | ST-0071 |
| 4 | 2609 | A | Which action should the GMDSS radio operator take in a distress situation when embarking in survival craft?   | Switch on EPIRB and SART immediately and leave on. | Switch on EPIRB and SART manually prior to launching and remain aboard vessel in distress. | Notify RCC (Rescue Coordination Center) through VHF DSC with portable equipment. | Communicate via Inmarsat-C from the survival craft. |         |
| 4 | 2610 | D | The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-06.5", AFT 23'-05.4". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.          | FWD 21'-07.1", AFT 23'-08.9"                       | FWD 21'-05.9", AFT 23'-01.9"   | FWD 21'-03.0", AFT 23'-04.8"   | FWD 21'-10.0", AFT 23'-06.0"                        | ST-0072 |
| 4 | 2611 | B | The central longitudinal structural hull strength member of the lower hulls of semisubmersible MODU's is called the _____.  | stress plate                                       | keel   | rider plate  | main beam   |         |
| 4 | 2612 | D | What is NOT listed as a synonym for crude oil in the Chemical Data Guide?   | Rock oil   | Mineral oil  | Seneca oil   | Earth crude   |         |

|   |      |   |  |  |  |  |  |         |
|---|------|---|--|--|--|--|--|---------|
| 4 | 2613 | C | What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?  | Smoke  | Electricity  | Chain reaction   | Pressure   |         |
| 4 | 2614 | D | What is required in addition to the heat, fuel, and oxygen of the fire triangle to have a fire?  | Smoke  | Electricity  | Pressure   | Chain reaction   |         |
| 4 | 2615 | C | On a MODU, the keel is the primary strength member of the lower hull form in which direction?  | transverse   | diagonal   | longitudinal   | vertical   |         |
| 4 | 2616 | A | According to the Chemical Data Guide, the flash point for motor gasoline is _____.   | -40°F  | 100°C  | 199°C  | 495°F  |         |
| 4 | 2617 | C | Which is an exception to the garbage discharge requirements in Annex V to MARPOL 73/78?  | The garbage to be discharged will sink.            | Garbage accumulation on board has exceeded storage space.      | A person falls overboard, and a plastic ice chest is thrown for flotation. | The destination port or terminal cannot receive garbage. |         |
| 4 | 2618 | D | What would NOT be a good extinguishing agent for a grade B product of 1,3-Pentadiene?  | Dry chemical                                       | CO2  | Foam   | Water  |         |
| 4 | 2619 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 1171.5 tons  | 1311.0 tons  | 1503.0 tons  | 1710.5 tons  | ST-0073 |
| 4 | 2620 | D | According to the Chemical Data Guide, which extinguishing agent is NOT recommended for use on a retinol fire?  | Dry chemical                                       | Foam   | CO2  | Water spray  |         |
| 4 | 2621 | C | The decks of a MODU are supported by transverse members called _____.  | trusses  | deck longitudinals   | deck beams   | web frames   |         |
| 4 | 2622 | C | Liquefied flammable gas is defined as any flammable gas having a Reid vapor pressure exceeding how many pounds?  | 14   | 30   | 40   | 50   |         |
| 4 | 2623 | A | Between the side frames on a MODU, support for the deck beams is provided by _____.  | stanchions   | brackets   | web frames   | deck stringers   |         |
| 4 | 2624 | D | The primary concern(s) for safely transporting and handling LFG is(are) _____.   | a system of cargo tanks and piping free from leaks | cargo tanks and piping strong enough to withstand the pressure | cargo tanks and piping located or protected to minimize physical damage    | All of the above   |         |
| 4 | 2625 | D | If help has not arrived in 10-12 hours after you abandon ship in a lifeboat, you should _____.   | go in one direction until the fuel runs out        | plot course for the nearest land                               | take a vote on which direction you should go                               | shut down the engines and set the sea anchor             |         |
| 4 | 2626 | D | Which message categories cannot be disabled by the GMDSS Radio Operator?   | Navigational warnings                              | Meteorological warnings  | Search and Rescue information  | All of the above   |         |



|   |      |   |   |                               |                           |                                     |   |  |
|---|------|---|---|-------------------------------|---------------------------|-------------------------------------|---|--|
| 4 | 2627 | C | Deck beams on a MODU are generally spaced at equal intervals and run _____.   | longitudinally                | vertically                | transversely                        | intermittently  |  |
| 4 | 2628 | C | What normally helps in detecting escaping gas?  | Running hand along pipe       | Red flame                 | Odor                                | Increase the line pressure                                      |  |
| 4 | 2629 | A | Severe exposure to chlorine gas can be fatal. Chlorine gas is primarily a _____.  | respiratory irritant          | skin burning agent        | blood poisoning agent               | nerve paralyzing irritant                                       |  |
| 4 | 2630 | D | According to the Chemical Data Guide, what is NOT a recommended extinguishing agent for an ethylene cyanohydrin fire?   | Alcohol foam                  | CO2                       | Dry chemical                        | Water fog   |  |
| 4 | 2631 | B | In MODU construction, beam brackets are triangular plates that join the deck beam to a _____.   | bulkhead                      | frame                     | stanchion                           | deck longitudinal   |  |
| 4 | 2632 | C | What is the proper first aid for LPG in the eye?  | Apply an ice pack to the eye. | Keep the eyelid closed.   | Flush the eye with plenty of water. | Rub the eye area clean.   |  |
| 4 | 2633 | D | A load line for a MODU is assigned by the _____.  | Minerals Management Service   | Department of Energy      | Corps of Engineers                  | A recognized classification society approved by the Coast Guard |  |
| 4 | 2634 | D | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 4 hold floods, the vessel will sink if the permeability exceeds what percent?   | 40                            | 48                        | 53                                  | 60  |  |
| 4 | 2635 | C | In MODU construction, beams are transverse girders which provide support to _____.  | bulkheads                     | deckhouse structures      | decks                               | vertical frames   |  |
| 4 | 2636 | A | When providing first aid to a victim of gas poisoning, the MOST important symptom to check for is _____.  | suspension of breathing       | unconsciousness           | slow and weak pulse                 | cold and moist skin   |  |
| 4 | 2637 | A | The maximum draft to which a MODU can legally be submerged is indicated by the _____.   | Load Line mark                | Certificate of Inspection | Muster List ("Station Bill")        | Tonnage mark  |  |
| 4 | 2638 | B | Marine Safety Information is promulgated via satellite through which system?  | AMVER                         | SafetyNET                 | NAVTEX                              | INMARSAT-M SES  |  |
| 4 | 2639 | B | Your vessel's drafts are: FWD 23'-10", AFT 26'-00". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 34 tons                       | 45 tons                   | 55 tons                             | 61 tons   |  |
| 4 | 2640 | B | What is NOT a grade E product?  | Diocetyl-phthalate            | Gasoline                  | Formic acid                         | Creosote coal tar   |  |

|   |      |   |  |  |  |   |   |  |
|---|------|---|--|--|--|---|---|--|
| 4 | 2641 | D | The deck plating on a MODU is supported primarily by deck longitudinals and deck _____.  | girders  | stanchions   | frames  | beams   |  |
| 4 | 2642 | B | When properly set and drawing, a fore-and-aft sail has a cross-section that _____.   | is a uniform curve   | is a curve with more curve at the luff   | is a curve with more curve at the leach   | approximates a straight line  |  |
| 4 | 2643 | C | Stanchions prevent the entire deck load on a MODU from being carried by the _____.   | bulkheads  | stringers  | frames and beam brackets  | deck longitudinals  |  |
| 4 | 2644 | D | When working on a tow, a good safety precaution is to _____.   | carry loads on your inside shoulder when walking along the outside of a barge                            | tighten ratchets outboard  | walk on the top of covered barges when possible to avoid narrow gunwales  | always remove the toothpick after tightening the ratchet  |  |
| 4 | 2645 | B | Keeping the draft of a MODU at or below the load line mark will insure that the unit has adequate _____.   | reserve ballast  | reserve buoyancy   | lightweight displacement  | critical motions  |  |
| 4 | 2646 | C | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 3200 brake horsepower? | 2  | 3  | 4   | 5   |  |
| 4 | 2647 | C | Which statement concerning GMDSS Radio Operator requirements is FALSE?   | Each compulsory vessel must carry at least two licensed GMDSS Radio Operators at all times while at sea. | Each compulsory vessel must carry at least two licensed GMDSS Radio Operators at all times while at sea and may elect to carry a GMDSS Radio Maintainer as well. | Communications involving safety of life at sea do not have to be logged as long as the compulsory vessel was not involved in such communications. | While at sea, adjustments to, and the maintaining of, GMDSS equipment may be performed by the GMDSS Radio Operator as long as the work is supervised by an onboard licensed GMDSS Radio Maintainer. |  |
| 4 | 2648 | D | Flames from small leaks of LFG may be extinguished by _____.   | utilizing carbon dioxide or dry chemical fire extinguishers  | utilizing soda and acid fire extinguishers   | blowing the flames out  | letting it burn itself out  |  |
| 4 | 2649 | B | Vinyl chloride reacts dangerously with _____.  | alkalies   | concentrated nitric acid   | saltwater   | organic acids   |  |
| 4 | 2650 | D | Which product(s) is(are) compatible with the product ethylene cyanohydrin?   | Sulfuric acid  | Nitric acid  | Isocyanates   | Ammonia   |  |

|   |      |   |  |  |   |  |   |         |
|---|------|---|--|--|---|--|---|---------|
| 4 | 2651 | B | Load line regulations are designed to insure that a MODU has adequate structural strength and sufficient _____.  | lifesaving equipment                                   | stability                                   | mooring tension                            | riser tension                                   |         |
| 4 | 2652 | D | Which vessel is required to carry an efficient daylight signaling lamp? (Uninspected Vessel Regulations)   | 99 GT towing vessel on Inland Waters                   | 199 GT towing vessel on a coastwise voyage  | 299 GT towing vessel on a coastwise voyage | 199 GT towing vessel on an international voyage |         |
| 4 | 2653 | A | The deck loads on a MODU are distributed through the deck beams to the _____.  | frames   | hull  | stringers                                  | plates  |         |
| 4 | 2654 | B | Name one major advantage of transporting gas under refrigeration.  | It increases its volume.                               | It reduces its volume.                      | It has less product per volume.            | None of the above                               |         |
| 4 | 2655 | C | Support of MODU side plating is provided primarily by transverse _____.  | beams  | girders                                     | frames                                     | bulkheads                                       |         |
| 4 | 2656 | D | How long must the GMDSS radio log be retained on board before sending it to the shoreside licensee?  | At least two years after the last entry                | At least one year after the last entry      | At least 90 days after the last entry      | At least 30 days after the last entry           |         |
| 4 | 2657 | D | Your drafts are: FWD 6'-2", AFT 6'-8". From past experience, you know that the vessel will increase her draft 1 inch for every 6 tons loaded. There is rig water on board and 23 tons of deck cargo. How many more tons of cargo can be loaded and still maintain the same trim? | 24 tons  | 18 tons                                     | 12 tons                                    | 6 tons  | D037DG  |
| 4 | 2658 | D | As a vessel changes course to starboard, the compass card in a magnetic compass _____.   | first turns to starboard then counterclockwise to port | also turns to starboard                     | turns counterclockwise to port             | remains aligned with compass north              |         |
| 4 | 2659 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 4.3 ft                                    | Available GM 4.1 ft                         | Available GM 3.9 ft                        | Available GM 3.6 ft                             | ST-0074 |
| 4 | 2660 | A | A synonym for chloroform is _____.   | trichloromethane                                       | sulfuric chlorohydrin                       | chlorine gas                               | 4-methyl phenol                                 |         |
| 4 | 2661 | B | When the longitudinal strength members of a MODU are continuous and closely spaced, the vessel is _____.   | transversely framed                                    | longitudinally framed                       | intermittently framed                      | web framed                                      |         |
| 4 | 2662 | C | A vessel with a large GM will _____.   | have a small amplitude of roll in heavy weather        | tend to ship water on deck in heavy weather | be subject to severe racking stresses      | be less likely to have cargo shift              |         |
| 4 | 2663 | A | Lighter longitudinal stiffening frames on the MODU side plating are called _____.  | stringers  | side frames                                 | side stiffeners                            | intercostals                                    |         |

|   |      |   |  |   |  |  |   |
|---|------|---|--|---|--|--|---|
| 4 | 2664 | A | Gasoline fumes tend to _____.  | settle near the bottom of the bilge   | settle near the top of the bilge   | settle evenly throughout all levels of the bilge by mixing with air                              | disperse to atmosphere  |
| 4 | 2665 | D | You are in the North Sea, which is a special area listed in ANNEX V of MARPOL. How many miles from land must you be to throw broken plywood dunnage over the side?   | 6 nm  | 12 nm  | 25 nm  | Must be retained aboard   |
| 4 | 2666 | A | Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.  | 0.7 foot  | 1.0 feet   | 1.7 feet   | 3.8 feet  |
| 4 | 2667 | D | Shipboard Oil Pollution Emergency Plans must be reviewed _____.  | annually by the owner, with a letter submitted six months before expiration | only once every five years, with a letter submitted six months before expiration | and the entire plan resubmitted for approval once every five years, six months before expiration | annually by the owner, with a letter submitted to the Coast Guard within one month of the anniversary date of the plan approval |
| 4 | 2668 | A | As a vessel changes course to starboard, the compass card in a magnetic compass _____.   | remains aligned with compass north  | also turns to starboard  | first turns to starboard then counterclockwise to port   | turns counterclockwise to port  |
| 4 | 2669 | C | Your vessel's drafts are: FWD 23'-10", AFT 26'-00". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 1 foot? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 61 tons   | 72 tons  | 79 tons  | 86 tons   |
| 4 | 2670 | B | According to the Chemical Data Guide, which material would corrode upon contact with aniline?  | Aluminum  | Copper   | Nickel   | Mild steel  |
| 4 | 2671 | D | To meet the regulations governing manning requirements outside U.S. jurisdiction, a person holding a foreign license can serve in any of the following positions EXCEPT _____.   | able seaman   | ballast control operator   | barge supervisor   | offshore installation manager   |

|   |      |   |  |                           |                                  |   |                                  |         |
|---|------|---|--|---------------------------|----------------------------------|---|----------------------------------|---------|
| 4 | 2672 | B | Your vessel's drafts are: FWD 16'-08", AFT 17'-06"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 60° inclination if the center of gravity is 1.7 feet off the centerline.            | 1.8 feet                  | 2.1 feet                         | 3.0 feet                                | 3.8 feet                         |         |
| 4 | 2673 | B | A MODU having continuous closely spaced transverse strength members is _____.  | longitudinally framed     | transversely framed              | cellular framed                         | web framed                       |         |
| 4 | 2674 | B | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 2 hold floods, the vessel will sink if the permeability exceeds what percent?  | 76                        | 67                               | 60                                      | 52                               |         |
| 4 | 2701 | A | Compared to internal structural plating, the exterior hull plating on a MODU is usually _____.   | stronger                  | thinner                          | more corrosion resistant                | a lower grade steel              |         |
| 4 | 2702 | A | Your vessel displaces 12,000 tons and has a KG of 22.6 feet. What will be the length of the remaining righting arm at an angle of inclination of 30° if the center of gravity shifts 1.8 feet transversely? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book) | 0.8 foot                  | 1.2 feet                         | 1.8 feet                                | 2.3 feet                         |         |
| 4 | 2703 | A | The number of certificated able seamen and lifeboatmen required on a MODU is stated in the _____.  | Certificate of Inspection | American Bureau of Shipping code | Minerals Management Service regulations | Safety of Life at Sea Convention |         |
| 4 | 2704 | A | What must be located on the discharge side of the pump in a fire main system?  | Pressure gauge            | Strainer                         | Reduction valve                         | International shore connection   |         |
| 4 | 2705 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 4.0 feet                  | 5.6 feet                         | 6.0 feet                                | 6.8 feet                         | ST-0077 |
| 4 | 2706 | A | Your vessel's drafts are: FWD 15'-09", AFT 16'-08"; and the KG is 23.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 0.9 foot off the centerline.                                | 15°                       | 18°                              | 21°                                     | 24°                              |         |

|   |      |   |   |  |                                  |   |   |         |
|---|------|---|---|--|----------------------------------|---|---|---------|
| 4 | 2707 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 3.8 ft                            | Available GM 3.6 ft              | Available GM 3.3 ft                         | Available GM 3.1 ft                               | ST-0078 |
| 4 | 2708 | A | Upon release to the atmosphere, LFG readily _____.  | vaporizes                                      | attacks caustically              | rises                                       | attacks corrosively                               |         |
| 4 | 2709 | C | Your vessel's drafts are: FWD 24'-06", AFT 25'-08"; and the KG is 22.9 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 50° inclination if the center of gravity is 0.5 foot off center. | 3.3 feet                                       | 2.6 feet                         | 2.3 feet                                    | 2.0 feet  |         |
| 4 | 2710 | B | Remote controls for quick-closing shut off valves are required in how many location(s)?   | 1  | 2                                | 3   | 4   |         |
| 4 | 2711 | D | The number of able seamen required on a MODU is stated in the _____.  | American Bureau of Shipping code               | Department of Energy regulations | Mineral Management Service rules            | Certificate of Inspection                         |         |
| 4 | 2712 | D | A vessel with a small GM will _____.  | be more subject to synchronous rolling         | have a short rolling period      | provide an uncomfortable ride for personnel | have a smaller amplitude of roll in heavy weather |         |
| 4 | 2713 | C | On a semisubmersible MODU, reserve buoyancy is increased by the presence of void spaces above the waterline in the _____.   | submerged hulls                                | quarters                         | columns and upper structure                 | submerged connecting structures                   |         |
| 4 | 2714 | C | Use the floodable length curve in Section 1, the blue pages, of the Stability Data Reference Book. If the curve represents 45 percent permeability and number 1 hold floods, the vessel will sink if the permeability exceeds what percent?                             | 63   | 66                               | 71  | 77  |         |
| 4 | 2715 | A | The certificate of inspection of a MODU will specify the _____.   | number of licensed personnel required on board | maximum load line draft          | maximum water depth for drilling            | next date for an inclining experiment             |         |
| 4 | 2716 | D | A life float on a fishing vessel must be equipped with _____.   | red parachute flares                           | drinking water                   | a jackknife                                 | a light   |         |
| 4 | 2717 | B | Horizontal subdivision decks forming watertight compartments in the columns of a semisubmersible MODU increase the unit's _____.  | tank capacities                                | stability in the event of damage | towing speed                                | anchor holding ratio                              |         |

|   |      |   |   |   |   |   |  |  |
|---|------|---|---|---|---|---|--|--|
| 4 | 2718 | D | Your vessel's drafts are: FWD 22'-04", AFT 22'-10"; and the KG is 18.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.   | 1.6 feet  | 2.9 feet  | 3.8 feet  | 4.6 feet   |  |
| 4 | 2719 | D | Your vessel's drafts are: FWD 14'-04", AFT 17'-08". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 2 feet? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book)    | 62 tons   | 65 tons   | 72 tons   | 75 tons  |  |
| 4 | 2720 | A | To determine the pressure and temperature limitations under which LFG is required to be transported on a barge, you should look at the _____.   | Certificate of Inspection   | loading order   | rules and regulations for tank vessels                            | tankerman's document   |  |
| 4 | 2721 | D | You are at the helm of a schooner-rigged sailing vessel under sail on the port tack, on a beam reach, with all appropriate sails set and properly trimmed. You are instructed to "bear off quickly". To utilize your sails to assist with the turn, you should _____.   | slack the foresail sheet  | slack the fore-staysail sheet   | slack the jib sheet   | slack the main sheet   |  |
| 4 | 2722 | D | Your vessel's drafts are: FWD 21'-08", AFT 24'-02". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 53 tons   | 57 tons   | 61 tons   | 65 tons  |  |
| 4 | 2723 | C | The prohibition against exceeding the load line draft may be considered temporarily not applicable when _____.  | column-stabilized units are operating in water depths over 600 feet | column-stabilized units are operating in waters outside U.S. jurisdiction | bottom supported units are being raised or lowered to the sea bed | bottom supported units are being towed on a move of less than 12 hours |  |
| 4 | 2724 | B | Your vessel's drafts are: FWD 18'-03", AFT 18'-09"; and the KG is 22.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.4 feet off the centerline.   | 18°   | 22°   | 26°   | 30°  |  |

|   |      |   |   |   |   |  |  |  |
|---|------|---|---|---|---|--|--|--|
| 4 | 2725 | B | The stability of a semisubmersible MODU would be seriously reduced if flooding occurred in the _____.   | submerged hulls   | column void spaces  | dry mud tanks  | ballast tanks  |  |
| 4 | 2726 | D | Your vessel's drafts are FWD 19'-02", AFT 23'-10". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the final drafts if 98 tons of fuel is loaded 116 feet forward of amidships.   | FWD 19'-04", AFT 23'-06"  | FWD 19'-07", AFT 23'-04"  | FWD 19'-09", AFT 23'-01"   | FWD 19'-09", AFT 23'-06"   |  |
| 4 | 2727 | B | For optimum stability during jacking operations, mat ballast tanks or spud cans should be _____.  | empty   | fully ballasted   | partially ballasted  | sealed   |  |
| 4 | 2728 | A | Your vessel's drafts are: FWD 14'-00", AFT 14'-08"; and the KG is 25.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 1.5 feet off the centerline. | 0.6 foot  | 1.3 feet  | 1.9 feet   | 2.9 feet   |  |
| 4 | 2729 | B | You are approaching another vessel and see that it has the signal flag "O" hoisted. What is your next action?   | Proceed on present course and speed since the vessel is requesting a pilot. | Attempt to call the vessel on VHF radiotelephone and begin a search because the vessel has a man overboard. | Attempt to call the vessel on VHF radiotelephone because it is disabled. | Approach with caution because the vessel is stopped and making no way through the water. |  |
| 4 | 2730 | C | According to the regulations, normally, manholes in LFG tanks are located _____.  | in the ends of each tank  | in the expansion trunk of each tank   | above the weather deck   | there are no requirements in the regulation  |  |
| 4 | 2731 | B | The document that certifies the correctness of the load line marks on a MODU is called the _____.   | Certificate of Inspection   | Load line certificate   | Certificate of Documentation   | SOLAS Certificate  |  |
| 4 | 2732 | C | According to the regulations, to prevent excessive pressure buildup in cargo tanks containing LFG, they are fitted with _____.  | pressure vacuum relief valves   | excess flow valves  | safety relief valves   | flame screens  |  |
| 4 | 2733 | A | Buoyancy associated with empty or partly empty ballast tanks in the mat of a mat supported jack-up MODU during jacking operations can cause _____.  | capsizing   | delays  | progressive flooding   | negative buoyancy  |  |



|   |      |   |   |                                    |  |   |  |         |
|---|------|---|---|------------------------------------|--|---|--|---------|
| 4 | 2734 | A | Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 24.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 15° inclination.   | 0.7 foot                           | 1.2 feet   | 1.9 feet                                | 4.8 feet                                       |         |
| 4 | 2735 | D | A load line is assigned to a MODU to insure adequate stability and _____.   | mooring tension                    | riser tension  | lifesaving equipment                    | structural strength                            |         |
| 4 | 2736 | A | Your vessel's drafts are: FWD 22'-04", AFT 23'-06"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 19° inclination if the center of gravity is 1.3 feet off center.                                       | 0.2 foot                           | 0.8 foot   | 1.4 feet                                | 2.2 feet                                       |         |
| 4 | 2737 | A | During jacking operations and transit, empty void spaces in the hull of a jack up MODU provide _____.   | buoyancy                           | extra storage space                                    | additional tank capacity                | reduced stability                              |         |
| 4 | 2738 | B | Generally, the first action in extinguishing an LFG fire caused by escaping gas is to _____.  | sweep flames away with water spray | shut off the leak                                      | use a chemical foam fire extinguisher   | call the local fire department                 |         |
| 4 | 2739 | B | Your vessel's drafts are: FWD 19'-03", AFT 21'-03". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 27 tons                            | 31 tons  | 34 tons                                 | 37 tons  |         |
| 4 | 2740 | A | The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-06.6", AFT 20'-05.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference book to determine the final drafts.  | FWD 20'-06", AFT 21'-02"           | FWD 18'-06", AFT 19'-09"                               | FWD 18'-10", AFT 20'-05"                | FWD 20'-03", AFT 21'-05"                       | ST-0079 |
| 4 | 2741 | D | A record of the types and strengths of steels used on a MODU must be included in the _____.   | general plans                      | builder's documentation                                | Certificate of Inspection               | construction portfolio                         |         |
| 4 | 2742 | B | A vessel with a small GM will _____.  | have a large amplitude of roll     | provide a comfortable ride for the crew and passengers | have drier decks in heavy weather       | be likely to have cargo shift in heavy weather |         |
| 4 | 2743 | C | Compliance with the terms of the load line certificate on a MODU is the responsibility of the _____.  | Ballast Control Operator           | Barge Supervisor                                       | Master or Offshore Installation Manager | operators representative                       |         |

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| 4 | 2744 | D | Radar reflectors are required for _____.   | all fishing vessels over 39 feet in length                             | sail-propelled fishing vessels                          | all fishing vessels of less than 200 GT                      | wooden hull fishing vessels with a poor radar echo                     |  |
| 4 | 2745 | B | The construction portfolio may be included as part of the MODU _____.  | general plans  | operating manual  | builders documentation                                       | Coast Guard file   |  |
| 4 | 2746 | D | Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 21.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.  | 0.8 foot   | 1.5 feet  | 2.7 feet   | 3.6 feet   |  |
| 4 | 2747 | D | Periodic surveys to renew the load line assignment for a MODU must be made at intervals not exceeding _____.   | 18 months  | 2 years   | 3 years  | 5 years  |  |
| 4 | 2748 | A | Most covered lifeboats will right themselves after capsizing if the _____.   | passengers are strapped to their seats                                 | fuel tanks are not less than half full                  | sea anchor is deployed to windward                           | lower ballast tanks are filled with water                              |  |
| 4 | 2749 | A | Your vessel's drafts are: FWD 19'-03", AFT 21'-03". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 1 foot? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 62 tons  | 68 tons   | 74 tons  | 78 tons  |  |
| 4 | 2750 | A | According to regulations, a cargo hose used for transferring liquefied gases must have a bursting pressure of _____.   | 5 times the maximum working pressure on the hose during cargo transfer | one half the designed working pressure                  | 4 times the pressure of the cargo pump used for transferring | 5 times the minimum working pressure on the hose during cargo transfer |  |
| 4 | 2751 | C | The requirements for special welding procedures on a MODU must be contained in the _____.  | vessel plans   | Coast Guard file  | construction portfolio                                       | construction plans   |  |
| 4 | 2753 | C | For MODU's operating under the U.S. flag, the construction portfolio must contain _____.   | detailed construction plans  | chemical and physical properties of ABS approved steels | approved welding procedures and welding test procedures      | loading conditions and limitations                                     |  |
| 4 | 2754 | B | Which lifesaving equipment must be tested monthly?   | Inflatable PFD's   | EPIRB   | Hydrostatic releases   | Dated batteries  |  |
| 4 | 2755 | C | What repair or modification to a MODU would most likely require consulting the construction portfolio?   | Replacing watertight doors in quarters                                 | Repair of drill pipe racks on deck                      | Repair of leg-to-can connection on a jack-up                 | Replacing a service pump foundation                                    |  |

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| 4 | 2756 | C | Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 26° inclination if the center of gravity is 1.0 foot off center.                                       | 0.0 feet  | 0.4 foot  | 0.8 foot  | 1.7 feet  |  |
| 4 | 2757 | A | A simplified construction plan may be included in the MODU construction portfolio provided it adequately defines the _____.   | areas where special materials are used            | hazardous areas                                   | location of emergency repair equipment                  | type and strength of materials used               |  |
| 4 | 2758 | C | A vessel is equipped with cross-connected deep tanks. In which situation should the cross-connection valve be closed?   | The tanks lie above the waterline and are filled. | The tanks are partially filled with dry cargo.    | The tanks are partially filled with liquid cargo.       | The tanks are filled and lie below the waterline. |  |
| 4 | 2759 | B | Your vessel's drafts are: FWD 14'-04", AFT 17'-08". The LCG of the forepeak is 200 feet forward of amidships. How many tons of ballast must be pumped into the forepeak in order to have a drag of 18 inches? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 110 tons  | 103 tons  | 100 tons  | 98 tons   |  |
| 4 | 2760 | B | According to the regulations, what type of gauging is required for a cargo of butadiene?  | Open  | Restricted  | Closed  | None  |  |
| 4 | 2761 | A | In the MODU construction portfolio, materials which do not conform to ASTM or ABS specifications must also include the _____.   | chemical and physical properties of the material  | name of the alternative standard or specification | the ASTM or ABS specification the material approximates | manufacturer or origin of the material            |  |
| 4 | 2762 | B | Your vessel's drafts are: FWD 24'-04", AFT 25'-10"; and the KG is 23.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 37° inclination.   | 1.9 feet  | 2.1 feet  | 3.5 feet  | 4.2 feet  |  |
| 4 | 2763 | C | A welding procedure used for joining dissimilar metals used on a MODU would be recorded in the _____.   | welding plan                                      | ASTM specifications                               | construction portfolio                                  | Coast Guard file                                  |  |
| 4 | 2764 | B | If you wear extra clothing when entering the water after abandoning ship it will _____.   | weigh you down                                    | preserve body heat                                | reduce your body heat                                   | make it more difficult to breathe                 |  |
| 4 | 2765 | D | The maximum draft to which a drilling unit may be safely loaded is called _____.  | mean draft  | calculated draft                                  | deep draft  | load line draft                                   |  |
| 4 | 2766 | B | How do you know how many passengers you may carry? (small passenger vessel regulations)   | As many as possible                               | The amount on the Certificate of Inspection       | Use your own judgment                                   | No more than 40 passengers                        |  |

|   |      |   |  |                                   |   |   |  |         |
|---|------|---|--|-----------------------------------|---|---|--|---------|
| 4 | 2767 | A | Forces within a drilling unit have caused a difference between the starboard and port drafts. This difference is _____.  | list                              | heel  | trim  | flotation  |         |
| 4 | 2768 | C | Small passenger vessels of less than 100 gross registered tons must be inspected by the Coast Guard when they carry more than _____. (small passenger vessel regulations)  | 12 passengers                     | 50 passengers                                   | 6 passengers                                  | 1 passenger  |         |
| 4 | 2769 | B | Starting motors, generators, and any other spark producing devices shall be _____. (small passenger vessel regulations)  | of the alternating current type   | mounted as high as practicable above the bilges | rated for at least 12 volts                   | All of the above   |         |
| 4 | 2770 | C | Branch venting from safety relief valves on barges shall be constructed to discharge the gas at a vertical height above the weather deck to a minimum of _____.  | 6 feet                            | 8 feet  | 10 feet                                       | 12 feet  |         |
| 4 | 2771 | D | The angle to which a floating MODU, with a negative initial metacentric height, lies while at rest in still water is the angle of _____.   | trim                              | yaw   | heel  | loll   |         |
| 4 | 2772 | A | Four vessel's drafts are: FWD 22'-09", AFT 23'-07"; and the KG is 24.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 18° inclination.            | 0.7 foot                          | 1.3 feet  | 2.0 feet                                      | 2.3 feet   |         |
| 4 | 2773 | C | The required portable radio apparatus on an international voyage must be stowed in _____.  | the Master's quarters             | the ship's office                               | the radio room, bridge, or protected location | an unlocked cabinet next to the Muster List ("Station Bill") |         |
| 4 | 2774 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 3.8 ft               | Available GM 3.5 ft                             | Available GM 3.2 ft                           | Available GM 2.9 ft  | ST-0080 |
| 4 | 2775 | D | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-08", AFT 29'-05". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts. | FWD 28'-11", AFT 28'-11"          | FWD 29'-01", AFT 28'-09"                        | FWD 29'-03", AFT 28'-07"                      | FWD 29'-05", AFT 28'-05"                                     | ST-0081 |
| 4 | 2776 | B | The lubber's line of a magnetic compass _____.   | always shows true north direction | indicates the vessel's heading                  | is always parallel to the vessel's transom    | is located on the compass card                               |         |
| 4 | 2777 | B | The lubber's line on a magnetic compass indicates _____.   | compass north                     | the direction of the vessel's head              | magnetic north                                | a relative bearing taken with azimuth circle                 |         |

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|---|------|---|---|---|---|--|--|--|
| 4 | 2778 | C | Your vessel's drafts are: FWD 24'-06", AFT 25'-04"; and the KG is 17.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 75° inclination if the center of gravity is 2.5 feet off the centerline. | 2.5 feet  | 3.3 feet  | 5.4 feet   | 9.7 feet   |  |
| 4 | 2779 | D | Error may be introduced into a magnetic compass by _____.   | making a structural change to the vessel                            | a short circuit near the compass                        | belt buckles   | All of the above   |  |
| 4 | 2780 | B | The carriage of a liquefied gas not appearing in table 4 of 46 CFR Part 154 must be approved by the _____.  | vessel owner  | Commandant (G-MTH)                                      | American Bureau of Shipping  | Officer in Charge, Marine Inspection                       |  |
| 4 | 2781 | A | For a floating MODU, the center of flotation is the point in the waterplane _____.  | about which the MODU lists and trims                                | which coincides with the center of buoyancy             | which, in the absence of external forces, is always vertically aligned with the center of gravity              | which is shown in the hydrostatic tables as VCB            |  |
| 4 | 2782 | C | Your vessel's drafts are: FWD 24'-06", AFT 25'-04"; and the KG is 22.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 20° inclination.   | 0.5 foot  | 0.8 foot  | 1.4 feet   | 2.2 feet   |  |
| 4 | 2783 | D | The angle of loll is a stability term which applies to a floating MODU with _____.  | off-center loading  | stiff characteristics                                   | excessive pitch or roll  | negative initial stability                                 |  |
| 4 | 2784 | C | When abandoning ship and jumping into the water from a substantial height without a life jacket, you should _____.  | dive head first, using your hands to break the surface of the water | hold your arms firmly at your sides and jump feet first | jump feet first, covering your nose and mouth with one hand and grasping the opposing upper arm with the other | jump feet first, holding your knees to your chest          |  |
| 4 | 2785 | B | The intact volume above the waterline of a floating MODU is _____.  | displacement volume   | reserve buoyancy  | gross tonnage  | net tonnage  |  |
| 4 | 2786 | C | Certain equipment aboard vessels, inspected under the small passenger vessel regulations, is required to be marked with the vessel's name. This includes _____. (small passenger vessel regulations)  | bunks, silverware, china, and glassware                             | anchors, line, paint cans, and fuel drums               | life jackets, life floats and paddles  | whistles, searchlights, navigation lights, and ship's bell |  |
| 4 | 2787 | D | You are on a commercial fishing vessel 78 feet long. At least one of your ring buoys or throwable flotation devices must have a line of what minimum length attached?   | 60 feet   | 70 feet   | 80 feet  | 90 feet  |  |

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|---|------|---|---|--|---|--|---|
| 4 | 2788 | B | Which is NOT a safety precaution to be observed during the loading of LFG?  | Report any leakage of cargo.                   | Make sure the rake ends of the barge are completely dry and mopped. | Ascertain that the hoses to be used are in good order. | Be on the lookout for work being accomplished ashore in the vicinity of the barges. |
| 4 | 2789 | D | As appropriate for the voyage, all vessels must carry adequate and up-to-date _____. (small passenger vessel regulations)   | charts   | Coast Pilots  | Light Lists  | All of the above  |
| 4 | 2790 | D | The weight of liquefied petroleum gas vapors as compared to air is _____.   | variable                                       | the same  | lighter  | heavier   |
| 4 | 2791 | A | Seawater may be used for drinking _____.  | under no conditions                            | at a maximum rate of two ounces per day                             | if gathered during or immediately after a hard rain    | after mixing with an equal quantity of fresh water                                  |
| 4 | 2792 | D | Your vessel's drafts are: FWD 18'-06", AFT 19'-01"; and the KG is 18.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 35° inclination.   | 1.8 feet                                       | 3.0 feet  | 4.7 feet   | 5.8 feet  |
| 4 | 2793 | A | The mean draft of a MODU is the draft _____.  | midway between the forward and aft draft marks | at the center of flotation  | at the load line                                       | at the center of buoyancy   |
| 4 | 2794 | D | Which would influence a magnetic compass?   | Electrical wiring                              | Iron pipe   | Radio  | All of the above  |
| 4 | 2795 | B | The true mean draft of a MODU is the draft _____.   | midway between drafts forward and aft          | at the center of flotation  | at the load line                                       | at the center of buoyancy   |
| 4 | 2796 | D | On small passenger vessels cooking and heating equipment _____.   | shall be suitable for marine use               | may use liquefied petroleum gas                                     | cannot use gasoline                                    | All of the above  |
| 4 | 2797 | C | A semisubmersible with a positive GM, and TCG located starboard of the centerline, inclines to an angle of _____.   | heel   | trim  | list   | loll  |
| 4 | 2798 | B | Your vessel's drafts are: FWD 17'-07", AFT 16'-09"; and the KG is 21.5 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 0.9 foot off the centerline. | 1.5 feet                                       | 2.8 feet  | 3.6 feet   | 4.3 feet  |
| 4 | 2799 | D | One of the principal dangers inherent in liquefied petroleum gas is _____.  | as it warms up it becomes heavier than air     | the way it reacts with sea water                                    | the strong odor it produces                            | its low temperature causes frostbite or freezing                                    |

|   |      |   |   |                                  |                                   |  |                                       |  |
|---|------|---|---|----------------------------------|-----------------------------------|--|---------------------------------------|--|
| 4 | 2800 | B | Your vessel assumes an angle of loll of 8° after loading a deck cargo. The drafts are: FWD 17'-09", AFT 18'-03". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.   | 0.0 foot                         | -0.2 foot                         | -0.8 foot                                      | -1.0 foot                             |  |
| 4 | 2801 | A | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2000 brake horsepower?  | 2                                | 3                                 | 4  | 5                                     |  |
| 4 | 2802 | B | Your vessel's drafts are: FWD 14'-11", AFT 15'-09"; and the KG is 18.2 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 2.0 feet off the centerline.                     | 9°                               | 12°                               | 16°  | 19°                                   |  |
| 4 | 2803 | A | When a magnetic compass is not in use for a prolonged period of time it should _____.   | be shielded from direct sunlight | be locked into a constant heading | have any air bubbles replaced with nitrogen    | have the compensating magnets removed |  |
| 4 | 2804 | A | Your vessel's drafts are: FWD 19'-09", AFT 20'-09"; and the KG is 24.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 15° inclination if the center of gravity is 0.5 foot off the centerline. | 0.0 feet                         | 0.5 foot                          | 1.2 feet                                       | 1.7 feet                              |  |
| 4 | 2805 | D | A vessel heading NNW is on a course of _____.   | 274.5°                           | 292.0°                            | 315.5°   | 337.5°                                |  |
| 4 | 2806 | C | A vessel heading NW is on a course of _____.  | 274.5°                           | 292.5°                            | 315.0°   | 337.5°                                |  |
| 4 | 2807 | A | A vessel heading SSW is on a course of _____.   | 202.5°                           | 225.0°                            | 247.5°   | 270.0°                                |  |
| 4 | 2810 | C | Your vessel assumes an angle of loll of 6° after loading a deck cargo. The drafts are: FWD 16'-00", AFT 16'-05". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.   | -1.0 foot                        | -0.6 foot                         | -0.1 foot                                      | -0.02 foot                            |  |
| 4 | 2811 | B | A vessel heading SW is on a course of _____.  | 202.5°                           | 225.0°                            | 247.5°   | 270.0°                                |  |
| 4 | 2812 | B | What is correct with respect to required watertight bulkheads on small passenger vessels less than 100 GT?  | Penetrations are prohibited.     | Sluice valves are not permitted.  | Each bulkhead must be stepped at its midpoint. | All of the above                      |  |

|   |      |   |   |  |  |                              |  |         |
|---|------|---|---|--|--|------------------------------|--|---------|
| 4 | 2813 | C | A vessel heading WSW is on a course of _____.   | 202.5°   | 225.0°   | 247.5°                       | 271.0°   |         |
| 4 | 2814 | B | Your vessel's drafts are: FWD 21'-04", AFT 21'-08"; and the KG is 20.6 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 45° inclination if the center of gravity is 1.2 feet off the centerline. | 3.8 feet   | 4.4 feet   | 5.2 feet                     | 5.6 feet   |         |
| 4 | 2815 | B | A vessel heading WNW is on a course of _____.   | 270.0°   | 292.5°   | 315.0°                       | 337.5°   |         |
| 4 | 2816 | B | When a lifeline is required to be attached to a ring life buoy it must be at least _____. (small passenger vessel regulations)  | 30 feet long   | 60 feet long   | 90 feet long                 | 120 feet long  |         |
| 4 | 2817 | C | A vessel heading SSE is on a course of _____.   | 112.5°   | 135.0°   | 157.5°                       | 180.0°   |         |
| 4 | 2818 | D | Your vessel assumes an angle of loll of 10° after loading a deck cargo. The drafts are: FWD 15'-11", AFT 16'-06". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.  | -1.3 feet  | -0.9 foot  | -0.6 foot                    | -0.3 foot  |         |
| 4 | 2819 | D | Distress flares and smoke signals are not required on vessels operating on short runs. A "short run" is limited to _____. (small passenger vessel regulation)   | water of less than 20 feet in depth  | where land is always in sight  | no more than 5 miles         | about 30 minutes away from the dock  |         |
| 4 | 2820 | B | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 26'-02", AFT 26'-08"   | FWD 25'-09", AFT 27'-02"   | FWD 25'-03", AFT 28'-09"     | FWD 24'-11", AFT 29'-11"   | ST-0082 |
| 4 | 2821 | B | A vessel heading SE is on a course of _____.  | 112.5°   | 135.0°   | 157.5°                       | 180.0°   |         |
| 4 | 2822 | A | Survival craft required on a steel small passenger vessel operating in cold water must _____.   | have sufficient capacity for all persons on board the vessel in ocean service. | have sufficient capacity for at least 50% of all persons on board for vessels in ocean service | be only inflatable liferafts | international orange in color only for vessels in lakes, bays and sounds service |         |
| 4 | 2823 | A | A vessel heading ESE is on a course of _____.   | 112.5°   | 135.0°   | 157.5°                       | 180.0°   |         |



|   |      |   |   |                                   |   |  |  |
|---|------|---|---|-----------------------------------|---|--|--|
| 4 | 2824 | D | Your vessel's drafts are: FWD 23'-01", AFT 24'-05"; and the KG is 22.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 30° inclination if the center of gravity is 1.9 feet off the centerline. | 3.7 feet                          | 2.3 feet  | 1.4 feet   | 0.7 foot   |
| 4 | 2826 | C | To prevent the spread of fire by convection you should _____.   | cool the bulkhead around the fire | remove combustibles from direct exposure        | close all openings to the area                     | shut off all electrical power                    |
| 4 | 2827 | B | For a floating MODU, true mean draft is always the _____.   | average of the observed drafts    | draft at the center of flotation                | draft corresponding to the calculated displacement | mean of the calculated drafts                    |
| 4 | 2828 | D | On board small passenger vessels, how often shall the Master test the steering gear?  | Once a week                       | Once a month                                    | Every 72 operating hours while underway            | Before getting underway for the day's operations |
| 4 | 2829 | B | Aboard small passenger vessels the steering gear, signaling whistle, controls, and communication system shall be tested by the Master _____.  | once a week                       | before getting underway for the day's operation | at every inspection and reinspection               | at least once in every 48 hours                  |
| 4 | 2830 | A | Your vessel assumes an angle of loll of 14° after loading a deck cargo. The drafts are: FWD 13'-01", AFT 13'-11". Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the negative GM.  | -0.7 foot                         | -0.4 foot                                       | -0.3 foot  | -0.1 foot  |
| 4 | 2831 | C | A vessel heading ENE is on a course of _____.   | 022.5°                            | 045.0°  | 067.5°   | 090.0°   |
| 4 | 2832 | D | Which fuel cannot be used for cooking on vessels carrying passengers for hire? (small passenger vessel regulations)   | Kerosene                          | Coal  | Wood   | Gasoline   |
| 4 | 2833 | B | A vessel heading NE is on a course of _____.  | 022.5°                            | 045.0°  | 067.5°   | 090.0°   |
| 4 | 2834 | C | Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the remaining righting arm at 60° inclination if the center of gravity is 2.4 feet off the centerline. | 2.4 feet                          | 1.8 feet  | 0.5 foot   | 0.2 foot   |
| 4 | 2835 | A | A vessel heading NNE is on a course of _____.   | 022.5°                            | 045.0°  | 067.5°   | 090.0°   |

|   |      |   |   |   |   |   |  |         |
|---|------|---|---|---|---|---|--|---------|
| 4 | 2836 | A | The remote control for a fixed fire extinguishing system should be _____. (Uninspected Vessel Regulations)  | painted red and labeled                       | concealed from the crew                         | protected by plexiglas                            | padlocked  |         |
| 4 | 2837 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 7.7 feet                                      | 9.1 feet  | 9.9 feet  | 10.6 feet  | ST-0083 |
| 4 | 2838 | C | How many B-II hand portable fire extinguishers are required in the machinery space of a 260 GT tow vessel with 2400 B.H.P.? (Uninspected Vessel Regulations)  | 6   | 5   | 3   | 2  |         |
| 4 | 2839 | A | What type of cooking equipment may NOT be used aboard vessels subject to The Rules and Regulations for Small Passenger Vessels?   | Gasoline                                      | Propane   | Butane  | LPG  |         |
| 4 | 2840 | D | If a vessel loads 400 tons of deck cargo resulting in a GM of -0.2 feet on 9000 tons of displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)  | 16°   | 15°   | 12°   | 9°   |         |
| 4 | 2841 | A | The distance from the still water level (corrected for tides and storm surge) to the bottom of the hull of a MODU is the _____.   | air gap                                       | freeboard                                       | penetration                                       | water depth  |         |
| 4 | 2842 | A | No "T-boat", however propelled, may operate with more than six passengers onboard _____.  | unless the operator has a Coast Guard license | unless the vessel has a valid Permit to Proceed | until the Boarding Officer has checked the papers | until a permit is obtained from the Collector of Customs |         |
| 4 | 2844 | A | Your vessel's drafts are: FWD 27'-06", AFT 28'-02"; and the KG is 23.1 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 37° inclination if the center of gravity is 1.8 feet off center. | 0.4 foot                                      | 1.4 feet  | 1.8 feet  | 2.6 feet   |         |
| 4 | 2845 | D | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 27'-01", AFT 25'-08"                      | FWD 29'-09", AFT 25'-09"                        | FWD 25'-09", AFT 30'-05"                          | FWD 25'-06", AFT 30'-00"                                 | ST-0084 |
| 4 | 2846 | B | A small passenger vessel engaging in international voyages must be dry docked at least once every _____.  | 6 months                                      | 12 months                                       | 36 months   | 60 months  |         |

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| 4 | 2847 | C | The required portable radio shall be stored in the proper location and be _____.  | equipped with an approved carrying case                       | equipped with spare batteries                     | readily accessible for transfer to a lifeboat                 | in a waterproof enclosure  |  |
| 4 | 2849 | C | A vessel would be referred to as "stiff" when the weight of the cargo is _____.   | evenly distributed vertically and the double bottoms are full | concentrated low and the double bottoms are empty | concentrated low and the double bottoms are full              | concentrated high and the double bottoms are empty                             |  |
| 4 | 2850 | B | If a vessel loads 400 tons of deck cargo resulting in a GM of -0.3 foot on 9000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)                             | 7°  | 11°   | 15°   | 17°  |  |
| 4 | 2852 | C | You are fighting a fire in a watertight compartment using hoses and river water. Stability may be reduced because of _____.   | progressive downflooding                                      | reduction of water in the storage tanks           | increase in free surface which reduces the metacentric height | reduction of KG to the minimum allowable                                       |  |
| 4 | 2853 | C | What can be used to measure the percentage of oxygen inside a confined space?   | Flame safety lamp   | Combustible gas indicator                         | Oxygen indicator  | H2S meter  |  |
| 4 | 2854 | C | The sailing drafts are: FWD 14'-08", AFT 15'-06" and the GM is 4.8 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 40° inclination.                            | 3.3 feet  | 3.7 feet  | 4.3 feet  | 5.4 feet   |  |
| 4 | 2855 | D | Deficient oxygen content inside a confined space can be detected with _____.  | litmus paper  | a combustible gas indicator                       | an oxygen breathing apparatus                                 | an oxygen indicator  |  |
| 4 | 2856 | A | Which vessel is NOT required to have a Pollution Placard posted on board?   | 215-foot naval auxiliary vessel                               | 75-foot towing vessel                             | 50-foot cabin cruiser used for pleasure only                  | 150-foot unmanned tank barge   |  |
| 4 | 2858 | A | A 50-foot passenger vessel not limited to daylight operation is required to be equipped with at least _____.  | 1 ring life buoys with a water light                          | 2 ring life buoy with a water light               | 2 ring life buoys with 2 water lights                         | 3 ring life buoys with 2 water lights  |  |
| 4 | 2859 | D | For emergency communications, vessels operating on oceans, coastwise, or Great Lakes routes, on runs of more than 30 minutes shall carry in a portable watertight container at or near the operating station _____ (small passenger vessel regulations) | six orange hand smoke distress signals                        | six red hand flare distress signals               | one 3-cell flashlight   | six red hand flare distress signals and six orange hand smoke distress signals |  |

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| 4 | 2860 | C | If a vessel loads 250 tons of deck cargo resulting in a GM of -0.3 foot on 8000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)   | 16°  | 13°  | 10°  | 7°   |
| 4 | 2861 | B | What is the minimum number of portable fire extinguishers required on board a 45-foot towing vessel having a fixed fire system on board? (Uninspected Vessel Regulations)   | 1 B-I  | 2 B-I  | 3 B-I  | 4 B-I  |
| 4 | 2862 | B | A wooden small passenger vessel operating on a coastwise route in cold water shall carry sufficient inflatable buoyant apparatus for _____ or meet alternate requirements regarding collision bulkhead standards and the provision of life floats. (small passenger vessel regulations) | all persons aboard   | 67% of the total number of persons permitted on board.                                       | 50% of all persons aboard  | 30% of all persons aboard  |
| 4 | 2863 | D | You are berthed at a cargo facility where you have just completed discharging a dangerous cargo from your barge. You must complete topside repairs on the barge involving hot work before sailing. Which statement is TRUE?   | You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility. | The repair area must be inspected by a marine surveyor to ensure that it can be done safely. | Hot work repairs at such a facility are prohibited.              | The Captain of the Port may give specific approval to make hot work repairs. |
| 4 | 2864 | A | The sailing drafts are: FWD 22'-08", AFT 23'-04" and the GM is 4.6 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 20° inclination.  | 2.1 feet   | 2.4 feet   | 2.8 feet   | 3.2 feet   |
| 4 | 2865 | D | Which statement about the free surface correction is TRUE?  | It is added to GM at light drafts and subtracted at deep drafts.   | It is increased if the slack tank is not on the centerline.                                  | It is decreased if the slack tank is below the KG of the vessel. | The correction decreases as the draft increases                              |
| 4 | 2866 | D | If a vessel is not equipped with an automatically-activated emergency lighting system, the vessel must be _____. (small passenger vessel regulations)   | operated only in daylight hours  | provided with gasoline or kerosene lights  | equipped with luminous tape markings on emergency equipment      | equipped with individual battery-powered lights                              |
| 4 | 2867 | B | In illustration D041DG, the symbol for amidships is _____.  | 2  | 3  | 4  | 5  |

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| 4 | 2868 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-06", AFT 17'-00". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 0.52 foot  | 0.70 foot                                       | 0.84 foot  | 1.10 feet  | ST-0085 |
| 4 | 2869 | B | Mechanical gearing of deck machinery such as the windlass or towing engine should _____.  | be open to view so, if a foreign object gets in the gearing, the operator can immediately stop the machinery | have a guard over the gearing                   | be painted a contrasting color from the base color in order to call attention to the gearing | not be operated if there is any crew within 10 feet of the machinery |         |
| 4 | 2870 | A | If a vessel loads 250 tons of deck cargo resulting in a GM of -0.4 foot on 8000 tons displacement, what will be the angle of loll? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)                                   | 12°  | 10°   | 8°   | 6°   |         |
| 4 | 2871 | B | As shown, the symbol 3 represents _____.  | displacement   | amidships                                       | forward perpendicular  | baseline   | D041DG  |
| 4 | 2872 | A | A tank barge equipped with an internal-combustion engine-driven cargo pump on the weather deck shall be provided with a minimum of one remote manual shutdown station. What is the correct location of the shutdown station?                                  | Midpoint of the vessel or 100 feet from the engine   | Stern of the vessel or 100 feet from the engine | Midpoint of the vessel or 75 feet from the bow   | Bow of the vessel or 75 feet from the engine                         |         |
| 4 | 2873 | A | As shown, the symbol for the reference from which transverse measurements are made is _____.  | 5  | 4   | 3  | 1  | D041DG  |
| 4 | 2874 | B | The sailing drafts are: FWD 22'-06", AFT 23'-06" and the GM is 3.3 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 22° inclination.                                  | 1.2 feet   | 1.8 feet  | 2.4 feet   | 3.0 feet   |         |
| 4 | 2875 | C | The symbol 5 as shown represents _____.   | displacement   | leverage center                                 | centerline   | counterflood limits  | D041DG  |
| 4 | 2876 | B | The minimum number of portable B-II fire extinguishers required in the machinery space of a 199 GT motor towing vessel of 8000 B.H.P. is _____.<br>(Uninspected Vessel Regulations)   | 3  | 6   | 8  | 9  |         |
| 4 | 2877 | B | In illustration D041DG, the symbol for the vertical plane midway between the fore and aft perpendiculars is _____.  | 2  | 3   | 4  | 5  |         |

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|---|------|---|---|---|---------------------------------------|---|--|--|
| 4 | 2878 | B | To prevent the spread of fire by conduction you should _____.   | remove combustibles from direct exposure                    | cool the bulkheads around the fire    | close all openings to the area                | shut off all electrical power                          |  |
| 4 | 2879 | A | While underway and towing an unmanned tank barge you are required to _____.   | maintain a strict watch on the barge from the towing vessel | fly a red flag from the towing vessel | open the tops of all empty tanks on the barge | take hourly soundings of any loaded tanks on the barge |  |
| 4 | 2880 | A | You have loaded a deck cargo, and the vessel has assumed a 6° list due to negative GM. Your salt water drafts are: FWD 16'-05", AFT 16'-07". If you then load 1150 tons of cargo in the lower holds (VCG 12.0 feet) and take on 520 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 1.8 feet  | 2.4 feet                              | 2.8 feet                                      | 3.1 feet   |  |
| 4 | 2881 | A | How many type B-II hand portable fire extinguishers are required in the machinery space of an uninspected towing vessel with 1,400 B.H.P.? (Uninspected Vessel Regulations)   | 2   | 3                                     | 4   | 5  |  |
| 4 | 2882 | A | Whenever an inspected vessel is dry-docked for major repairs, the person in charge of the vessel, the owner or the agent should report this to the _____ (small passenger vessel regulations)   | Officer in Charge, Marine Inspection                        | National Cargo Bureau, Inc.           | American Boat and Yacht Council, Inc.         | All of the above                                       |  |
| 4 | 2883 | C | Life jackets should be stowed in _____.   | survival craft  | messrooms                             | readily accessible locations                  | locked watertight containers                           |  |
| 4 | 2884 | B | The sailing drafts are: FWD 23'-02", AFT 24'-06" and the GM is 2.8 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book to determine the available righting arm at 30° inclination.   | 1.3 feet  | 2.5 feet                              | 3.2 feet                                      | 3.7 feet   |  |
| 4 | 2885 | A | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 29'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.  | FWD 26'-04", AFT 30'-00"                                    | FWD 26'-06", AFT 29'-10"              | FWD 26'-08", AFT 29'-08"                      | FWD 26'-10", AFT 29'-06"                               |  |

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|---|------|---|--|---|--|--|---|--|
| 4 | 2886 | A | A small passenger vessel, operating only on domestic routes, which is operated in salt water for more than three months in a year must undergo a dry dock and internal structural examination at least once every _____.   | 2 years                                 | 3 years  | 4 years  | 5 years   |  |
| 4 | 2887 | B | Seawater may be used for drinking _____.   | at a maximum rate of two ounces per day | under no conditions  | after mixing with an equal quantity of fresh water                 | if gathered during or immediately after a hard rain |  |
| 4 | 2889 | C | Switchboards shall be ..... (small passenger vessel regulations)   | Watertight.                             | Grounded to the main engine on a wooden hulled boat.               | The dead-front type, totally enclosed                              | Equipped with switch locks                          |  |
| 4 | 2890 | D | You have loaded a deck cargo, and the vessel has assumed an 8° list due to negative GM. Your salt water drafts are: FWD 16'-10", AFT 17'-02". If you then load 1050 tons of cargo in the lower holds (VCG 12.5 feet) and 475 tons in the lower 'tween decks (VCG 24.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 2.1 feet                                | 1.6 feet   | 1.4 feet   | 0.6 foot  |  |
| 4 | 2891 | D | The maximum angle at which the intact stability curves are valid for MODU's is the angle for _____.  | the limit of positive stability         | the limit of small-angle stability                                 | maximum offset   | downflooding  |  |
| 4 | 2892 | B | Regulations define the bulkhead deck as _____ (subdivision and stability regulations)  | any deck extending from stem to stern   | the uppermost deck to which transverse watertight bulkheads extend | the lowermost deck to which transverse watertight bulkheads extend | the uppermost complete deck                         |  |
| 4 | 2893 | D | The downflooding angle for a MODU is the maximum angle at which _____.   | stability is positive                   | neutral equilibrium exists   | the load line is not submerged                                     | intact stability curves are valid                   |  |
| 4 | 2894 | D | The sailing drafts are: FWD 23'-10", AFT 25'-02" and the GM is 5.3 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 18° inclination.   | 0.8 feet                                | 1.1 feet   | 1.5 feet   | 1.9 feet  |  |
| 4 | 2895 | B | The downflooding angle for a MODU is the minimum angle at which _____.   | the load line becomes submerged         | a non-watertight opening is at still water level                   | offset becomes excessive   | reserve buoyancy is a maximum                       |  |
| 4 | 2896 | C | Your vessel is certificated to carry 50 persons. You are required to have _____ (small passenger vessel regulations)   | 50 adult life jackets                   | 40 adult life jackets and 10 child life jackets                    | 50 adult life jackets and 5 child life jackets                     | 50 adult life jackets and 2 child life jackets      |  |

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|---|------|---|--|--|--|--|--|--|
| 4 | 2897 | D | If the result of loading a vessel is an increase in the height of the center of gravity, there will always be an increase in the _____.  | metacentric height   | righting arm   | righting moment  | vertical moments                         |  |
| 4 | 2898 | D | Painters on life floats shall be not less than _____. (small passenger vessel regulations)   | 20 feet in length  | 30 feet in length  | 70 feet in length  | 100 feet in length                       |  |
| 4 | 2899 | A | All small passenger vessels operating on lakes, bays, sounds, or river routes on runs of more than 30 minutes are required to carry _____. (small passenger vessel regulations)  | 3 red hand flare distress signals and 3 orange smoke hand distress signals | 8 red hand flare distress signals and 8 orange smoke hand distress signals | 6 red hand flare distress signals and 6 orange smoke hand distress signals | None of the above                        |  |
| 4 | 2900 | C | You have loaded a deck cargo, and the vessel has assumed a 7° list due to negative GM. Your salt water drafts are: FWD 17'-00", AFT 17'-04". If you then load 825 tons of cargo in the lower holds (VCG 11 feet) and take on 500 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 0.8 foot   | 1.0 foot   | 1.7 feet   | 2.3 feet                                 |  |
| 4 | 2901 | A | What is one of the FIRST actions you should take after abandoning and clearing away from a vessel?   | Identify the person in charge.   | Gather up useful floating objects.   | Prepare for arrival of rescue units.                                       | Arrange watches and duties.              |  |
| 4 | 2902 | D | Vessels in ocean service shall carry sufficient life floats for _____. (small passenger vessel regulations)  | 25% of all persons on board  | 50% of all persons on board  | 75% of all persons on board  | 100% of all persons on board             |  |
| 4 | 2903 | D | Life jackets should be marked with the _____.  | maximum weight allowed   | stowage space assigned   | vessel's home port   | vessel's name                            |  |
| 4 | 2904 | D | The sailing drafts are: FWD 24'-03", AFT 25'-03" and the GM is 5.5 feet. Use the information in Section 1, the blue pages of the Stability Data Reference Book, to determine the available righting arm at 30° inclination.  | 2.6 feet   | 2.9 feet   | 3.2 feet   | 3.5 feet                                 |  |
| 4 | 2905 | A | Each emergency light must be marked with _____.  | the letter "E"   | an arrow pointing to the nearest exit                                      | a no-smoking symbol  | the word "DANGER"                        |  |
| 4 | 2906 | D | Which vessel must carry a compass on board? (small passenger vessel regulations)   | A non-self-propelled vessel  | A vessel operating in protected waters with a short restricted route       | A vessel operating on the Ohio River                                       | A vessel operating on the Gulf of Mexico |  |



|   |      |   |  |  |                                     |   |  |         |
|---|------|---|--|--|-------------------------------------|---|--|---------|
| 4 | 2907 | C | The number of kips necessary to change the true mean draft of a MODU one inch is known as _____.   | MT1 inch                                       | MH1 inch                            | KPI   | KMD  |         |
| 4 | 2908 | C | How many months after its expiration date may a Coast Guard license be renewed without retaking the complete exam?   | 1 month  | 6 months                            | 12 months   | 24 months                                  |         |
| 4 | 2909 | C | Following a collision or accident, the Master of each vessel involved must render assistance to persons affected by the collision or accident _____.   | if he can do so without any risk to his vessel | if he can do so without undue delay | if he can do so without serious danger to his vessel or to individuals on board | without regard to any danger to his vessel |         |
| 4 | 2910 | D | You have loaded a deck cargo, and the vessel has assumed a 6° list due to negative GM. Your salt water drafts are: FWD 16'-02", AFT 16'-06". If you then load 825 tons of cargo in the lower holds (VCG 11.5 feet) and take on 624 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 3.0 feet                                       | 2.7 feet                            | 2.4 feet  | 1.9 feet                                   |         |
| 4 | 2911 | B | In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.  | ventilation                                    | convection                          | radiation   | conduction                                 |         |
| 4 | 2912 | A | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.  | 0.68 foot                                      | 0.85 foot                           | 0.97 foot   | 1.30 feet                                  | ST-0086 |
| 4 | 2913 | B | The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-09.5", AFT 22'-09.5". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.   | FWD 21'-06.3", AFT 22'-06.6"                   | FWD 21'-11.3", AFT 23'-01.8"        | FWD 22'-06.6", AFT 21'-06.9"  | FWD 23'-00.2", AFT 22'-00.4"               | ST-0087 |
| 4 | 2914 | C | The sailing drafts are: FWD 25'-03", AFT 26'-03" and the GM is 3.5 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 25° inclination.   | 0.8 foot                                       | 1.4 feet                            | 2.0 feet  | 2.6 feet                                   |         |
| 4 | 2915 | C | A MODU lists and trims about the _____.  | center of gravity                              | center of buoyancy                  | center of flotation   | centroid of the underwater volume          |         |

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| 4 | 2916 | C | What is the minimum number of B-II hand portable fire extinguishers required on board a 105 GT towboat with a 7500 B.H.P. plant (including the machinery space)? (Uninspected Vessel Regulations)  | 6  | 8  | 9   | 11  |         |
| 4 | 2917 | A | For a jack-up, the angle of maximum stability corresponds approximately to the angle of _____.   | deck edge immersion  | the load line  | downflooding  | loll  |         |
| 4 | 2918 | B | Which statement is TRUE concerning the ventilation of engine and fuel tank compartments on uninspected towing vessels using fuel with a flash point of 100°F? (Uninspected Vessel Regulations)   | There shall be at least 3 ventilator ducts open to the atmosphere. | At least one exhaust duct shall extend from the open atmosphere to the lower portion of the bilge. | At least one intake duct shall extend from the open atmosphere to the lower portion of the bilge. | Only vessels using fuel with a flash point above 110°F need ventilate engine and fuel compartments. |         |
| 4 | 2919 | B | All of the following are part of the fire triangle EXCEPT _____.   | fuel   | electricity  | oxygen  | heat  |         |
| 4 | 2920 | A | You have loaded a deck cargo, and the vessel has assumed an 8° list due to negative GM. Your salt water drafts are: FWD 16'-02", AFT 16'-06". If you then load 1200 tons of cargo in the lower holds (VCG 12 feet) and take on 624 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 2.0 feet   | 2.6 feet   | 3.0 feet  | 3.4 feet  |         |
| 4 | 2921 | C | A MODU is inclined at an angle of loll. In the absence of external forces, the righting arm (GZ) is _____.   | positive   | negative   | zero  | vertical  |         |
| 4 | 2922 | D | Whenever practicable, the Certificate of Inspection must be posted _____. (small passenger vessel regulations)   | as high as feasible in the pilot house                             | near the area where passengers embark  | in any location desired   | in a conspicuous place where it will most likely be observed by the passengers                      |         |
| 4 | 2923 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 4.01 ft   | Available GM 4.16 ft   | Available GM 4.69 ft  | Available GM 4.81 ft  | ST-0088 |

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|---|------|---|---|---|--------------------------------------|---|---|--|
| 4 | 2924 | A | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.4 feet and the drafts are: FWD 15'-03", AFT 15'-09".  | 25°   | 33°                                  | 48°   | 72°   |  |
| 4 | 2925 | C | The free surface effects of a partially full liquid tank decrease with increased _____.   | density of the liquid   | placement of the tank above the keel | displacement volume of the MODU                                     | size of the surface area in the tank                                  |  |
| 4 | 2926 | B | The sailing drafts are: FWD 16'-06", AFT 17'-04" and the GM is 2.6 feet. Use the information in Section 1, the blue pages, of the Stability Data Reference Book, to determine the available righting arm at 15° inclination.  | 0.4 foot  | 0.8 foot                             | 1.2 feet  | 1.9 feet  |  |
| 4 | 2927 | A | If the metacentric height is small, a floating MODU will _____.   | be tender   | have a quick and rapid motion        | be stiff  | yaw   |  |
| 4 | 2928 | A | It is recommended that drip collectors required on all updraft carburetors be drained by _____. (small passenger vessel regulations)  | a device to automatically return all drip to the engine air intakes | no means whatsoever                  | a separate pipe leading to the bilges                               | a pump leading to a point outside the hull                            |  |
| 4 | 2930 | B | You have loaded a deck cargo, and the vessel has assumed a 5° list due to negative GM. Your salt water drafts are: FWD 16'-10", AFT 16'-08". If you then load 1225 tons of cargo in the lower hold (VCG 12 feet) and 875 tons of cargo in the lower 'tween decks (VCG 24 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 0.0 feet  | 0.8 foot                             | 1.2 feet  | 1.9 feet  |  |
| 4 | 2931 | C | If the metacentric height is large, a floating MODU will _____.   | be tender   | have a slow and easy motion          | be stiff  | have a tendency to yaw  |  |
| 4 | 2932 | A | What is FALSE concerning the use of unicellular plastic foam work vests on small passenger vessels? (small passenger vessel regulations)  | They may be substituted for up to 50% of the required life jackets. | They shall be of an approved type.   | They shall be stowed separately from required lifesaving equipment. | They may be worn by crew members when working near or over the water. |  |
| 4 | 2933 | D | Movement of liquid in a tank when a drilling barge inclines causes an increase in _____.  | righting arm  | metacentric height                   | height of the uncorrected KG  | natural rolling period  |  |
| 4 | 2934 | C | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.8 feet and the drafts are: FWD 23'-05", AFT 24'-04".  | 37°   | 31°                                  | 26°   | 21°   |  |

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|---|------|---|---|--|---|--|--|--|
| 4 | 2935 | A | Which statement is TRUE concerning life jackets which are severely damaged?   | They should be replaced.   | They must be tested for buoyancy before being continued in use. | They can be repaired by a reliable seamstress.                   | They can be used for children.                           |  |
| 4 | 2936 | C | A vessel's drafts are: FWD 16'-03", AFT 16'-09"; and the KG is 21.3 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 2 feet off the centerline.  | 12°  | 14°   | 20°  | 22°  |  |
| 4 | 2937 | D | A tank of a MODU with a volume of 2,000 cubic feet is pressed with sea water weighing 64 pounds per cubic foot. What is the weight, in kips, of the liquid?   | 54 kips  | 67 kips   | 78 kips  | 128 kips   |  |
| 4 | 2938 | A | What equipment must be on a life float? (small passenger vessel regulations)  | Two paddles, a light, painter, lifeline and pendants                       | Water-light, painter, and signal mirror                         | Water-light and painter only                                     | Two paddles, painter, and six red flares                 |  |
| 4 | 2939 | A | How many distress flares and smoke signals are small passenger vessels on oceans, coastwise or Great Lakes routes required to carry?  | Six red hand flares and six orange smoke signals in a watertight container | Two ring life buoys with attached water lights                  | A battery operated red-flasher lantern                           | All of the above   |  |
| 4 | 2940 | B | You have loaded a deck cargo, and the vessel has assumed a 5° list due to negative GM. Your salt water drafts are: FWD 16'-05", AFT 16'-07". If you then load 1200 tons of cargo in the lower holds (VCG 11 feet) and take on 520 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the material in Section 1, the blue pages, of the Stability Data Reference Book) | 2.5 feet   | 2.0 feet  | 1.4 feet   | 0.6 foot   |  |
| 4 | 2941 | D | The existence of liquids in partially full tanks or compartments of a MODU causes a virtual rise in the height of the _____.  | metacenter   | center of buoyancy  | center of flotation  | center of gravity  |  |
| 4 | 2942 | C | Vessels in ocean service shall carry _____. (small passenger vessel regulations)  | life floats for 50% of all persons on board                                | buoyant apparatus for all persons on board                      | sufficient inflatable buoyant apparatus for all persons on board | life jackets for 50% of all persons on board             |  |
| 4 | 2943 | B | A virtual rise in the center of gravity of a MODU may be caused by _____.   | filling a partially filled tank  | using an on board crane to lift a freely swinging heavy object  | emptying a partially filled tank                                 | transferring pipe from the setback area to the pipe rack |  |

|   |      |   |   |                                 |                                     |   |  |  |
|---|------|---|---|---------------------------------|-------------------------------------|---|--|--|
| 4 | 2944 | D | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 25.0 feet and the drafts are: FWD 15'-04", AFT 15'-08".  | 12°                             | 17°                                 | 20°   | 23°  |  |
| 4 | 2945 | B | A virtual rise in the center of gravity of a MODU may be caused by _____.   | filling a partially filled tank | using fuel from a pressed fuel tank | emptying a partially filled tank              | transferring pipe from the setback area to the pipe rack |  |
| 4 | 2946 | C | Your vessel's drafts are: FWD 17'-09", AFT 18'-03"; and the KG is 22.4 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.5 feet off the centerline.   | 14°                             | 18°                                 | 22°   | 26°  |  |
| 4 | 2947 | C | A semisubmersible displacing 700,000 cubic feet while floating in sea water (64 pounds per cubic foot) weighs _____.  | 8,929 long tons                 | 19,509 long tons                    | 20,000 long tons                              | 24,500 long tons   |  |
| 4 | 2948 | B | Licenses are issued for _____.  | 3 years                         | 5 years                             | 1 year  | 2 years  |  |
| 4 | 2949 | D | Which information are you required to report to the Coast Guard when an accident occurs in which loss of life results? (small passenger vessel regulations)   | Location of the occurrence      | Number and name of vessel           | Names of owners                               | All of the above   |  |
| 4 | 2950 | C | You have loaded a deck cargo, and the vessel has assumed a 7° list due to negative GM. Your salt water drafts are: FWD 16'-00", AFT 16'-02". If you then load 1050 tons of cargo in the lower holds (VCG 11.0 feet) and take on 600 tons of bunkers (VCG 2.5 feet), what is the final GM? (Use the reference material in Section 1, the blue pages, of the Stability Data Reference Book) | 2.8 feet                        | 2.5 feet                            | 1.9 feet                                      | 1.5 feet   |  |
| 4 | 2951 | D | A jack-up displacing 350,000 cubic feet while floating in sea water (64 pounds per cubic foot) weighs _____.  | 10,000 kips                     | 18,169 kips                         | 21,841 kips                                   | 22,400 kips  |  |
| 4 | 2952 | B | Where is the most probable location of the remote shutdown station for cargo pumps on a tank barge carrying oil?  | The loading dock                | The midpoint of the barge           | Within 25 feet of the pump engine             | Above the forward rake end                               |  |
| 4 | 2953 | D | When the height of the metacenter has the same value as the height of the center of gravity, the metacentric height is equal to _____.  | the height of the metacenter    | the height of the center of gravity | the same as half the height of the metacenter | zero   |  |

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|---|------|---|--|---|--|---|--|---------|
| 4 | 2954 | C | Your sailing drafts are: FWD 19'-06", AFT 20'-10" and the GM is 3.3 feet. What will be the angle of list if the #2 starboard deep tank (capacity 100 tons, VCG 19.1 feet, and 24 feet off the centerline) is filled? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | Less than 1°                              | 2°   | 4°  | 6°                                       |         |
| 4 | 2955 | D | For a floating MODU, the center of buoyancy and the metacenter are in the line of action of the buoyant force _____.   | only when there is positive stability     | only when there is negative stability            | only when there is neutral stability                | at all times                             |         |
| 4 | 2956 | C | The SS AMERICAN MARINER arrived in port with drafts of: FWD 21'-10.6", AFT 22'-11.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.   | FWD 22'-00.1", AFT 23'-00.1"              | FWD 21'-11.0", AFT 23'-01.2"                     | FWD 21'-10.0", AFT 22'-10.0"                        | FWD 21'-08.9", AFT 22'-11.1"             | ST-0089 |
| 4 | 2957 | D | Your vessel's drafts are: FWD 21'-09", AFT 23'-03"; and the KG is 20.0 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the angle of list if the center of gravity is shifted 1.9 feet off the centerline.                                  | 9°  | 12°  | 15°   | 19°                                      |         |
| 4 | 2958 | B | The discharge side of every fire pump must be equipped with a _____.   | gate valve                                | pressure gauge                                   | check valve   | strainer                                 |         |
| 4 | 2959 | A | Which commodity would be regulated by subchapter D, Rules and Regulations for Tank Vessels?  | Asphalt                                   | Vinyl Chloride                                   | Benzene   | All of the above                         |         |
| 4 | 2961 | A | The Certificate of Inspection issued to a vessel carrying more than six passengers must be _____. (small passenger vessel regulations)   | posted on board under glass, if practical | posted on the dock where passengers are embarked | retained at the owner's principal place of business | kept on file by the Collector of Customs |         |
| 4 | 2962 | A | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 17'-06", AFT 24'-03"                  | FWD 19'-03", AFT 22'-06"                         | FWD 17'-01", AFT 24'-08"                            | FWD 21'-04", AFT 19'-07"                 | ST-0090 |
| 4 | 2964 | A | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.2 feet and the drafts are: FWD 23'-06", AFT 24'-03".   | 26°                                       | 30°  | 34°   | 53°                                      |         |

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| 4 | 2965 | B | Which is TRUE concerning immersion suits and their use?  | Only a light layer of clothing may be worn underneath.        | They provide sufficient flotation to do away with the necessity of wearing a life jacket. | They should be tight fitting.                               | A puncture in the suit will not appreciably reduce its value.                   |  |
| 4 | 2966 | A | Each vessel shall be dry-docked or hauled out at intervals not to exceed 2 years if operated in salt water for a total of more than _____. (small passenger vessel regulations)                              | 3 months in any 12 month period since it was last hauled out  | 6 months in the 3 year period since it was last hauled out                                | 12 months in the 5 year period since it was last hauled out | whenever ownership or management changes  |  |
| 4 | 2967 | B | When a wind force causes a floating MODU to heel to a static angle, the _____.   | centers of buoyancy and gravity are in the same vertical line | righting moment equals the wind-heeling moment  | downflooding point is below water                           | deck-edge immersion occurs  |  |
| 4 | 2968 | D | Air-cooled radiators for gasoline propulsion engine cooling _____. (small passenger vessel regulations)  | must be approved for marine use                               | must have a double fan installation   | must be filled with fresh water                             | are permitted on vessels less than 65 feet carrying not more than 12 passengers |  |
| 4 | 2969 | C | All inlet and discharge fittings below the waterline shall have _____. (small passenger vessel regulations)  | cast-iron shut-off valves                                     | a wooden plug with a 36 inch lanyard  | an efficient and accessible means of closing                | a blank-off flange of similar material  |  |
| 4 | 2970 | C | An immersion suit must be equipped with a/an _____.  | air bottle for breathing                                      | orange smoke canister   | whistle, light and retroreflective material                 | sea dye marker  |  |
| 4 | 2972 | D | Regulations require that approved buoyant work vests _____. (small passenger vessel regulations)   | may not be carried on inspected vessels                       | may be substituted for 10% of the required life jackets                                   | shall be stowed in a place inaccessible to passengers       | shall be stowed separately from the required life jackets                       |  |
| 4 | 2974 | C | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.2 feet and the drafts are: FWD 27'-11", AFT 28'-07". | 72°   | 52°   | 24°   | 19°   |  |
| 4 | 2975 | A | A quick and rapid motion of a MODU in a seaway is an indication of a(n) _____.   | large GM  | high center of gravity  | excessive free surface                                      | small GZ  |  |
| 4 | 2976 | C | Aboard small passenger vessels the number of childrens' life jackets carried must be at least what percentage of the total number of persons aboard?   | 4%  | 7.5%  | 10%   | 15%   |  |
| 4 | 2977 | A | A slow and easy motion of a MODU in a seaway is an indication of a _____.  | small GM  | low center of gravity   | stiff vessel  | large GZ  |  |

|   |      |   |   |                                     |  |  |  |         |
|---|------|---|---|-------------------------------------|--|--|--|---------|
| 4 | 2978 | D | Which equipment is not required for a life float? (small passenger vessel regulations)  | Paddles                             | Light  | Painter  | Compass  |         |
| 4 | 2981 | A | The center of gravity of a freely swinging load suspended from a pedestal crane acts as if it were located at the _____.  | counterweight                       | pedestal   | longitudinal centerline                              | point of suspension  |         |
| 4 | 2982 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 15'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.   | 1.20 feet                           | 0.92 foot  | 0.73 foot  | 0.61 foot  | ST-0091 |
| 4 | 2983 | A | The height of the metacenter above the keel will vary depending on the _____.   | draft and beam of the drilling unit | displacement and deadweight of the drilling unit     | buoyancy and trim of the drilling unit               | tonnage and deadweight of the drilling unit                          |         |
| 4 | 2984 | B | Your sailing drafts are: FWD 24'-02", AFT 24'-10" and the GM is 4.6 feet. What will be the angle of list if #6 starboard double bottom (capacity 95 tons, VCG 2.6 feet, and 21 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | Less than 1°                        | 2°   | 4°   | 7°   |         |
| 4 | 2985 | C | For a MODU with list, a decrease in GMT will cause the angle of inclination to _____.   | stabilize at an angle of loll       | decrease   | increase   | remain constant  |         |
| 4 | 2986 | A | What must be mounted at a small passenger vessel's operating station for use by the Master and crew?  | Emergency Instructions              | A tide table for the area                            | Instructions on artificial respiration               | The location of the first aid kit                                    |         |
| 4 | 2987 | A | For a MODU with trim, a decrease in GMT will cause the angle of inclination to _____.   | increase                            | decrease   | remain constant                                      | stabilize at an angle of loll  |         |
| 4 | 2988 | A | No person whose license has been revoked shall be issued another license except upon _____.   | approval of the Commandant          | taking a new examination                             | approval of the Officer-in-Charge, Marine Inspection | approval of an administrative law judge                              |         |
| 4 | 2989 | C | When would it NOT be necessary to immediately notify the U.S. Coast Guard? (small passenger vessel regulations)   | Loss of life                        | Major damage affecting the seaworthiness of a vessel | Damage amounting to \$2,000                          | Injury to a person which requires medical treatment beyond first aid |         |
| 4 | 2990 | C | The SS AMERICAN MARINER arrived in port with drafts of: FWD 28'-04", AFT 30'-08". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.  | FWD 29'-01", AFT 30'-01"            | FWD 29'-03", AFT 29'-11"                             | FWD 29'-05", AFT 29'-09"                             | FWD 29'-07", AFT 29'-07"   | ST-0092 |



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| 4 | 2992 | B | A 98 GT uninspected towing vessel with a 1500 B.H.P. engine capability would be required to carry how many type B-II hand portable fire extinguishers on board? (Uninspected Vessel Regulations)  | 2   | 4   | 6   | 8   |         |
| 4 | 2993 | D | Convection spreads a fire by _____.   | the transfer of heat across an unobstructed space   | burning liquids flowing into another space  | transmitting the heat of a fire through the ship's metal                                    | heated gases flowing through ventilation systems                                |         |
| 4 | 2994 | D | Your sailing drafts are: FWD 21'-08", AFT 22'-04" and the GM is 3.2 feet. What will be the angle of list if the #6 port deep tank (capacity 201 tons, VCG 11.4 feet, and 25.5 feet off the centerline) is filled? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | 2°  | 4°  | 6°  | 8°  |         |
| 4 | 2996 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 286.1 ft  | 282.7 ft  | 278.6 ft  | 272.4 ft  | ST-0093 |
| 4 | 2998 | B | The minimum amount of lifesaving equipment required aboard an 85-foot uninspected towing vessel consists of _____. (Uninspected Vessel Regulations)   | one approved flotation cushion for each person on board                                   | one approved life preserver for each person on board and one lifebuoy   | one approved inflatable vest for each person on board                                       | lifeboat capacity equal to 1 1/2 times the number of persons on board           |         |
| 4 | 2999 | D | The use of portable electrical equipment in the pumproom on tank barges is prohibited unless _____.   | the pumproom is gas-free  | spaces with bulkheads common to the pumproom are either gas-free, inert, filled with water, or contain grade E liquid | all other compartments in which flammable vapors and gases may exist are closed and secured | All of the above  |         |
| 4 | 3001 | C | Which statement concerning immersion suits is TRUE?   | Immersion suits should be worn during routine work on deck to provide maximum protection. | After purchasing, the suit should be removed from its storage bag and hung on a hanger where readily accessible.      | Immersion suits must have a PFD light attached to the front shoulder area.                  | Small leaks or tears may be repaired using the repair kit packed with the suit. |         |
| 4 | 3002 | D | A vessels Certificate of Inspection will show the _____. (small passenger vessel regulations)   | crew requirements   | minimum fire fighting and lifesaving equipment  | route permitted   | All of the above  |         |

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| 4 | 3003 | C | How is the external flotation bladder of an immersion suit inflated?   | It is inflated by a small CO2 bottle that is automatically tripped when the front zipper is at the top of the zipper track. | It is inflated by a small CO2 bottle that is manually tripped. | It is inflated by blowing through an inflation tube. | It inflates by seawater bleeding into the inflation bladder and reacting with a chemical. |         |
| 4 | 3004 | B | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 23.7 feet and the drafts are: FWD 28'-00", AFT 28'-06". | 16°   | 21°  | 41°  | 56°   |         |
| 4 | 3005 | D | All vessels having a Certificate of Inspection and operating exclusively in salt water shall be dry-docked or hauled out _____. (small passenger vessel regulations)   | once in each calendar year  | once in each fiscal year                                       | at the time of each inspection                       | at intervals not to exceed 2 years  |         |
| 4 | 3006 | C | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 26'-03", AFT 27'-08"  | FWD 26'-08", AFT 25'-07"                                       | FWD 25'-06", AFT 26'-11"                             | FWD 26'-11", AFT 25'-06"  | ST-0094 |
| 4 | 3007 | C | A floating MODU with an initial negative metacentric height _____.   | will capsize  | will incline further   | may lie at an angle of loll                          | may be initially level  |         |
| 4 | 3008 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.   | 280.2 ft  | 284.1 ft   | 285.3 ft   | 286.2 ft  | ST-0095 |
| 4 | 3009 | A | Which type of ventilation is required for enclosed spaces containing gasoline, machinery, or fuel tanks? (small passenger vessel regulations)  | Natural supply and mechanical exhaust   | Mechanical supply and natural exhaust                          | Mechanical supply and mechanical exhaust             | Natural supply and natural exhaust  |         |
| 4 | 3010 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 4.07 ft  | Available GM 4.60 ft   | Available GM 4.69 ft                                 | Available GM 4.81 ft  | ST-0096 |
| 4 | 3011 | B | A semisubmersible which will not remain upright and will assume a list either to port or starboard is likely to have _____.  | a large TCG   | a negative GM  | excessive ballast                                    | insufficient deck load  |         |
| 4 | 3013 | B | Semisubmersibles A and B are identical. However, "A" is more tender than "B". This means that "A" relative to "B" has a _____.   | lower KG  | smaller GM   | smaller roll angle                                   | larger GZ   |         |

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| 4 | 3014 | D | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 21.8 feet and the drafts are: FWD 19'-05", AFT 20'-01".  | 52°                                   | 45°                                      | 31°                                  | 26°  |  |
| 4 | 3015 | A | An inclined semisubmersible with a very short rolling period about a constant angle of list is likely to have _____.  | an off-center TCG                     | an LCG greater than level vessel LCB     | a negative GM                        | excessive free surfaces                                      |  |
| 4 | 3016 | C | Hand held red flares expire 42 months from the date of manufacture. Floating orange smoke distress signals expire after how many months?  | 18 months                             | 24 months                                | 42 months                            | 60 months  |  |
| 4 | 3017 | D | A semisubmersible which flops between forward and aft trim angles is likely to have _____.  | an off-center TCG                     | LCG greater than level-vessel LCB        | KMT greater than KML                 | KML less than KGL  |  |
| 4 | 3018 | D | Each life float on an inspected vessel shall be fitted and equipped with _____. (small passenger vessel regulations)  | a lifeline, a painter, and one paddle | a lifeline, a painter, and a water light | two paddles, a light, and a lifeline | two paddles, a light, a lifeline, a painter and pendants     |  |
| 4 | 3019 | D | All vessels not limited to daylight service shall be fitted with a ring life buoy _____. (small passenger vessel regulations)   | on the stern of the vessel            | with a twenty fathom line attached       | with no line attached                | with a water light to be attached during nighttime operation |  |
| 4 | 3021 | B | A semisubmersible which flops between port and starboard angles of list is likely to have _____.  | KMT greater than KML                  | KMT less than KGT                        | an off-center LCG                    | TCG greater than level-vessel TCB                            |  |
| 4 | 3022 | B | Vessels operating in warm water whose routes are restricted to 20 miles from a harbor of safe refuge shall carry life floats or buoyant apparatus for not less than _____. (small passenger vessel regulations)   | 25% of all persons on board           | 50% of all persons on board              | 75% of all persons on board          | 100% of all persons on board                                 |  |
| 4 | 3023 | A | A semisubmersible which flops between forward and aft angles of trim is likely to have _____.   | KML less than KGL                     | an off-center LCG                        | LCG greater than LCB                 | KML greater than KMT   |  |
| 4 | 3024 | C | Your sailing drafts are: FWD 17'-07", AFT 18'-05" and the GM is 3.4 feet. What will be the angle of list if #4 port double bottom (capacity 140 tons, VCG 2.6 feet, and 26 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | Less than 1°                          | 3°                                       | 6°                                   | 9°   |  |
| 4 | 3025 | D | A semisubmersible with a negative GM flops to an angle of _____.  | heel                                  | trim                                     | list                                 | loll   |  |

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| 4 | 3026 | B | Who is required to prepare and post Emergency Instructions in a conspicuous place accessible to crew and passengers? (small passenger vessel regulations)   | The builder of the vessel                          | The owner or Master of the vessel       | The U.S. Coast Guard                   | The classification society                                    |         |
| 4 | 3027 | D | If the result of loading a MODU is an increase in the height of the center of gravity, there will always be an increase in the _____.   | metacentric height                                 | righting arm                            | righting moment                        | vertical moments  |         |
| 4 | 3028 | C | While serving as Master on board your vessel, your license must be _____. (small passenger vessel regulations)  | displayed in the company office on shore           | displayed in your home                  | in your possession on board the vessel | kept in the Coast Guard office where you sat for your license |         |
| 4 | 3030 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 7.7 feet   | 9.1 feet                                | 9.9 feet                               | 10.6 feet   | ST-0097 |
| 4 | 3031 | D | The natural rolling period of a drilling barge increases when _____.  | GM increases                                       | the setback is placed in the pipe racks | free surfaces are reduced              | ice accumulates above deck                                    |         |
| 4 | 3032 | A | Controls for a fixed carbon dioxide system shall be mounted _____. (Uninspected Vessel Regulations)   | directly outside the space protected by the system | as near the gas cylinders as possible   | in the pilothouse                      | on the main deck near the bow                                 |         |
| 4 | 3033 | B | The effects of free surface on initial stability depend upon the dimensions of the surface of the free liquids and the _____.   | volume of liquid in the tank                       | volume of displacement of the vessel    | location of the tank in the vessel     | height of the center of gravity of the vessel                 |         |
| 4 | 3034 | B | Your sailing drafts are: FWD 14'-04", AFT 16'-02" and the GM is 3.0 feet. What will be the angle of list if #5 port double bottom (capacity 195 tons, VCG 2.6 feet, and 18.5 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | 4°   | 8°                                      | 13°                                    | 16°   |         |
| 4 | 3035 | B | The external inflation bladder on an immersion suit should be inflated _____.   | before you enter the water                         | after you enter the water               | after one hour in the water            | after you notice that your suit is losing buoyancy            |         |
| 4 | 3036 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 262.3 ft   | 264.9 ft                                | 268.1 ft                               | 270.3 ft  | ST-0098 |

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| 4 | 3037 | C | An immersion suit should be equipped with a/an _____.   | air bottle for breathing  | whistle and hand held flare  | whistle, strobe light and reflective tape  | whistle, hand held flare and sea dye marker   |         |
| 4 | 3038 | B | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 18'-06", AFT 20'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.10 feet   | 0.91 foot  | 0.72 foot  | 0.68 foot   | ST-0099 |
| 4 | 3039 | A | What is a requirement for remote manual shutdown stations for internal combustion engine driven cargo pumps on tank barges?   | They must be conspicuously marked.                                    | They must be located at least 10 feet from the engine.                                   | There must be at least two such shutdown devices.  | The valve rods shall be fitted with stuffing boxes.   |         |
| 4 | 3040 | A | A vessel's drafts are: FWD 19'-00", AFT 21'-10". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)                                   | 4819 tons   | 4982 tons  | 5012 tons  | 5099 tons   |         |
| 4 | 3042 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 271.2 ft  | 260.3 ft   | 251.9 ft   | 247.2 ft  | ST-0100 |
| 4 | 3043 | B | Which statement concerning immersion suits is TRUE?   | Immersion suits should be worn while performing routine work on deck. | After purchasing, the suit should be stowed in the storage bag in which it was received. | During the annual maintenance, the front zipper should be lubricated using light machine oil or mineral oil. | Any tear or leak will render the suit unserviceable and it must be replaced.                      |         |
| 4 | 3044 | B | Using the information in Section 1, the blue pages, of the Stability Data Reference Book, determine the danger angle for permanent list if the KG is 22.4 feet, and the drafts are: FWD 19'-06", AFT 20'-00".   | 12°   | 24°  | 48°  | 52°   |         |
| 4 | 3045 | C | You are testing the external flotation bladder of an immersion suit and find it has a very slow leak. Which action should be taken?   | Replace the suit.   | Replace the inflation bladder.   | Contact the manufacturer for repair instructions.  | Some leakage should be expected and a topping off tube is provided; no other action is necessary. |         |
| 4 | 3047 | B | Automatic fire dampers in ventilation systems are operated by use of _____.   | remotely operated valves  | fusible links  | CO2 system pressure switches   | heat or smoke detectors   |         |

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| 4 | 3048 | A | What is required for a dry exhaust pipe? (small passenger vessel regulations)  | Noncombustible hangers and supports                | Insulation from combustible material   | An automatic damper  | A rain spray and spray cap   |  |
| 4 | 3050 | B | A vessel's drafts are: FWD 14'-04", AFT 15'-08". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)  | 7280 tons  | 7879 tons  | 8004 tons  | 8104 tons  |  |
| 4 | 3051 | D | The external flotation bladder on an immersion suit should be inflated _____.  | only after two hours in the water                  | only after four hours in the water   | before entry into the water  | upon entry into the water  |  |
| 4 | 3052 | D | Which statement is TRUE concerning work vests on a small passenger vessel?   | They may be worn during drills                     | They may be substituted for up to 10% of the required life jackets on board        | They need not be an approved type  | They must be stowed separately from approved life jackets                            |  |
| 4 | 3053 | D | On an OSV, when may a work vest be substituted for a required life jacket?   | To replace a damaged life jacket                   | For use during fire drills   | For use during boat drills   | At no time   |  |
| 4 | 3054 | B | Your sailing drafts are: FWD 22'-04", AFT 23'-06" and the GM is 3.2 feet. What will be the angle of list if #3 starboard double bottom (capacity 97 tons, VCG 2.5 feet and 23 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | Less than 1°                                       | 3°   | 7°   | 11°  |  |
| 4 | 3055 | B | Which statement is TRUE concerning life jackets?   | Buoyant vests may be substituted for life jackets. | Life jackets are designed to turn an unconscious person's face clear of the water. | Life jackets must always be worn with the same side facing outwards to float properly. | Lightly stained or faded life jackets will fail in the water and should not be used. |  |
| 4 | 3056 | C | The service use of pyrotechnic distress signals measured from the date of manufacture shall be limited to a period of _____.   | 24 months  | 36 months  | 42 months  | 60 months  |  |
| 4 | 3057 | A | Each buoyant work vest on an OSV must be _____.  | Coast Guard Approved                               | marked with the name of the unit   | equipped with a waterlight   | All of the above   |  |
| 4 | 3058 | D | Life floats and buoyant apparatus shall be marked _____. (small passenger vessel regulations)  | with the vessel's name in 3" letters               | conspicuously in 1-1/2" letters with the number of persons allowed                 | with the vessel's name on all paddles  | All of the above   |  |
| 4 | 3059 | A | How many ring life buoys must a small passenger vessel, of less than 65 feet in length, carry?   | 1  | 2  | 3  | 4  |  |

|   |      |   |   |  |  |  |  |  |
|---|------|---|---|--|--|--|--|--|
| 4 | 3060 | C | A vessel's drafts are: FWD 19'-00", AFT 17'-02". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)   | 5928 tons  | 6016 tons  | 6149 tons  | 6242 tons  |  |
| 4 | 3061 | C | When transferring survivors from a survival craft to a rescue vessel, personnel on board the craft should _____.  | remove their lifejackets to make it easier to climb on board the rescue vessel | climb on top of the survival craft while waiting their turn to transfer to the rescue vessel | remain seated inside the survival craft and make the transfer one person at a time | enter the water and swim over to the rescue vessel |  |
| 4 | 3062 | D | The Master of a vessel shall make sure the EPIRB is tested _____. (small passenger vessel regulations)  | daily  | weekly   | every two weeks  | monthly  |  |
| 4 | 3063 | C | The first AMVER position report must be sent within how many hours of departure?  | 48   | 36   | 24   | 12   |  |
| 4 | 3064 | A | Your sailing drafts are: FWD 18'-03", AFT 19'-07" and the GM is 4.3 feet. What will be the angle of list if #2 starboard double bottom (capacity 78 tons, VCG 2.7 feet, and 24.5 feet off the centerline) is filled with saltwater? (Use the data in Section 1, the blue pages, of the Stability Data Reference Book) | 3°   | 5°   | 7°   | 9°   |  |
| 4 | 3065 | A | Which precaution should be taken when testing a line throwing gun?  | Never remove the line from the rocket.   | Fire it at an angle of approximately 90 degrees to the horizon.                              | Wear asbestos gloves.  | All of the above                                   |  |
| 4 | 3066 | B | Prior to getting underway for the day's operations, every small passenger vessel shall have it's steering gear tested by _____.   | the Mate on watch  | the Master   | a Mate or Designated Duty Engineer   | a licensed Engineer                                |  |
| 4 | 3067 | A | The canopy of your liferaft should _____.   | go into place as your liferaft is inflated                                     | be put up after everyone is aboard   | be put up only in severe weather   | be used as a sail if the wind is blowing           |  |
| 4 | 3069 | C | Unless otherwise stated, the term "approved" applied to a vessel's equipment, means approved by the _____. (small passenger vessel regulations)   | American Bureau of Shipping  | Congress of the United States  | Commandant of the Coast Guard  | Board of Fire Underwriters                         |  |
| 4 | 3070 | D | Your vessel's drafts are: FWD 14'-04", AFT 12'-08". How much more cargo can be loaded to have the vessel down to the freeboard draft? (Use the information in Section 1, the blue pages, of the Stability Data Reference Book)  | 6500 tons  | 7001 tons  | 7415 tons  | 8699 tons  |  |

|   |      |   |   |                                  |   |  |                                      |         |
|---|------|---|---|----------------------------------|---|--|--------------------------------------|---------|
| 4 | 3100 | C | Portable fire extinguishers must be provided for the cargo tank area of an unmanned tank barge _____.   | only when fully loaded           | if one or more tanks are full             | when transferring cargo                  | only when the barge is being towed   |         |
| 4 | 3101 | C | Adding the transverse free surface correction to the uncorrected height of the center of gravity of a MODU yields _____.  | FSCT                             | KG  | KGT                                      | GMT                                  |         |
| 4 | 3102 | A | Which type of fixed fire-extinguishing system is approved for use on board uninspected vessels? (Uninspected Vessel Regulations)  | Carbon dioxide                   | Steam smothering                          | Chemical foam                            | All of the above                     |         |
| 4 | 3103 | C | Adding the longitudinal free surface correction to the uncorrected height of the center of gravity of a MODU yields _____.  | FSCL                             | KG  | KGL                                      | GML                                  |         |
| 4 | 3104 | B | An emergency check-off list is required on vessels carrying six or fewer passengers for hire. The list must contain information on all of the following EXCEPT _____. (Uninspected Vessel Regulations)                                      | precautions for rough weather    | actions required in the event of accident | procedures for man overboard emergencies | emergency procedures for fire at sea |         |
| 4 | 3105 | B | Subtracting the height of the center of gravity corrected for transverse free surface effects from the height of the transverse metacenter of a MODU yields _____.  | GM                               | GMT                                       | KGT                                      | KMT                                  |         |
| 4 | 3106 | C | The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 272.2 feet                | LCG-FP 268.3 feet                         | LCG-FP 265.1 feet                        | LCG-FP 263.4 feet                    | ST-0105 |
| 4 | 3107 | B | Subtracting the height of the center of gravity corrected for longitudinal free surface effects from the height of the longitudinal metacenter of a MODU yields _____.  | GM                               | GML                                       | KGL                                      | KML                                  |         |
| 4 | 3108 | C | A CO2 extinguisher which has lost 10% of its charge must be _____.  | used at the earliest opportunity | hydro tested                              | recharged                                | weighed again in one month           |         |
| 4 | 3109 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 3.9 feet                         | 4.3 feet                                  | 4.7 feet                                 | 5.1 feet                             | ST-0106 |
| 4 | 3110 | B | When a vessel is not in compliance with its Certificate of Inspection, which certificate may be issued to allow its movement to a repair facility? (small passenger vessel regulations)   | Change of Employment             | Permit to Proceed                         | Application for Inspection               | Temporary Certificate of Inspection  |         |



|   |      |   |  |   |   |  |   |         |
|---|------|---|--|---|---|--|---|---------|
| 4 | 3111 | B | For a MODU with list, an increase in GMT will cause the inclination to _____.  | stabilize at an angle of loll                               | decrease  | increase   | remain constant   |         |
| 4 | 3112 | C | An 85 foot uninspected towing vessel with a crew of ten (10) persons on board must carry at LEAST _____. (Uninspected Vessel Regulations)  | 10 approved ring life buoys and 10 approved life preservers | 10 approved work vests                          | 10 approved life jackets and 1 approved ring life buoy   | 11 approved life preservers                             |         |
| 4 | 3113 | B | For a MODU with trim, an increase in GMT will cause the inclination to _____.  | stabilize at an angle of loll                               | decrease  | increase   | remain constant   |         |
| 4 | 3115 | B | For a MODU with transverse inclination, an increase in GMT causes _____.   | list to stabilize at an angle of loll                       | list to decrease                                | trim to decrease   | list to increase  |         |
| 4 | 3116 | C | According to the Lifesaving regulations in Subchapter W, fire and abandon ship drills must be held within 24 hours of leaving port if the percentage of the crew that has not participated in drills aboard that particular vessel in the prior month exceeds _____. | 5%  | 10%   | 25%  | 40%   |         |
| 4 | 3117 | D | For a MODU with longitudinal inclination, an increase in GML causes _____.   | list to stabilize at an angle of loll                       | trim to stabilize at an angle of loll           | trim to increase   | trim to decrease  |         |
| 4 | 3118 | A | The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 275.72 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.                          | LCG-FP 268.3 feet   | LCG-FP 265.4 feet                               | LCG-FP 261.2 feet  | LCG-FP 256.9 feet                                       | ST-0107 |
| 4 | 3119 | B | Life floats and buoyant apparatus may be stowed in tiers, one above the other, to a height of not more than _____. (small passenger vessel regulations)  | 3 feet  | 4 feet  | 5 feet   | 6 feet  |         |
| 4 | 3120 | C | Before issuing an initial Certificate of Inspection, the construction arrangement and equipment of a vessel must be acceptable to the _____. (small passenger vessel regulations)  | American Bureau of Shipping Surveyor                        | U.S. Salvage Marine Surveyor                    | Officer in Charge, Marine Inspection                     | U.S. Customs Collector                                  |         |
| 4 | 3121 | A | To prevent the spread of fire by conduction you should _____.  | cool the bulkheads around the fire                          | remove combustibles from direct exposure        | close all openings to the area                           | shut off all electric power                             |         |
| 4 | 3122 | A | All life jackets carried on board small passenger vessels are required to be marked _____. (small passenger vessel regulations)  | with the vessel's name                                      | with the vessel's official number               | with the maximum weight to be held by the life preserver | with the maximum serviceable life of the life preserver |         |
| 4 | 3123 | C | You are monitoring VHF Channel 16 when you receive a call to your vessel, TEXAS PRIDE. What is the proper way to answer this call?   | "This is TEXAS PRIDE. Pick a channel."                      | "This is TEXAS PRIDE on Channel 16. Come back." | "This is TEXAS PRIDE, WSR 1234, reply Channel 10."       | "Please stand by. We're busy right now."                |         |

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| 4 | 3124 | A | On a life float or buoyant apparatus, the life line is _____. (small passenger vessel regulations)   | secured around the sides and ends in bights of not longer than three feet  | woven into a net and secured in the center of the float   | used for securing unconscious persons to the sides          | the lanyard for securing provisions  |  |
| 4 | 3125 | D | The center of flotation for the COASTAL DRILLER is located at the geometric center of the _____.   | underwater volume  | above water volume  | amidships section   | waterplane area  |  |
| 4 | 3126 | D | A cargo information card does NOT contain _____.   | instructions for the safe handling of the cargo                            | appearance and odor characteristics of the cargo  | precautions to be observed in case of a spill or leak       | duties of the person in charge during the transfer of cargo  |  |
| 4 | 3127 | A | Automatic fire dampers in ventilation systems are operated by use of a _____.  | fusible link   | remote operated valve   | CO2 system pressure switch                                  | heat or smoke detector   |  |
| 4 | 3128 | D | You are Master of a 20-ton ketch. You wish to heave-to on the starboard tack in 35 knots of wind. Which action would be appropriate?                         | Set your storm jib aback to port and secure your rudder hard to starboard. | Secure your reefed mizzen aback to starboard and your storm jib aback to port. Secure your rudder hard to port. | Sheet your mizzen in flat and secure your rudder amidships. | Secure your storm jib aback to starboard and sheet your reefed mizzen in flat. Secure your rudder hard to starboard. |  |
| 4 | 3129 | D | If water is rising in the bilge of a survival craft, you should first _____.   | abandon the survival craft   | check for cracks in the hull  | shift all personnel to the stern                            | check the bilge drain plug   |  |
| 4 | 3130 | C | What is the minimum height of rails on passenger decks of ferryboats, excursion vessels, and vessels of a similar type? (small passenger vessel regulations) | 18 inches (.5 m) high  | 24 inches (.6 m) high   | 39-1/2 inches (1 m) high                                    | 42 inches (1.1 m) high   |  |
| 4 | 3131 | C | Damage stability of a MODU is the stability _____.   | which exists when the wind speed is less than 50 knots                     | before collision  | after flooding  | at survival draft  |  |
| 4 | 3132 | D | If the water level is rising in the bilge of a survival craft, you should first _____.   | increase the speed of the survival craft                                   | shift all personnel to the bow  | shift all personnel to the stern                            | check the bilge drain plug   |  |
| 4 | 3133 | D | The stability which exists after the unintentional flooding of a compartment on a MODU is called _____.  | intact stability   | initial stability   | immersion stability   | damage stability   |  |
| 4 | 3134 | B | Which is a B-II fire extinguisher? (Uninspected Vessel Regulations)  | A 2-1/2 gallon water (stored pressure) extinguisher                        | A 15 lb. CO2 extinguisher   | A 2 lb. dry chemical extinguisher                           | A 1-1/4 gallon foam extinguisher   |  |

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|---|------|---|---|--|---|--|--|---------|
| 4 | 3135 | A | While the DEEP DRILLER is operating loaded as shown in Sample Load Form #4 (Drilling), casing is accidentally dropped over the port side. If the port forward inclination is slowly increasing, which tank is probably damaged?   | 1P   | 2P  | 1S   | 3P   |         |
| 4 | 3136 | A | Where should the tops of vents from gasoline tanks terminate?   | In open air  | Inside cabins near the overhead                     | In the machinery space near the engine air intake          | Underwater   |         |
| 4 | 3137 | B | With damaged floating vessels, the most important consideration is the preservation of _____.   | bilge pumping capacity                             | reserve buoyancy                                    | level attitude   | instability  |         |
| 4 | 3138 | B | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 20 while using a single belt loader to arrive at a desired mean keel draft of 29'-06"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.) | 1550 tons  | 2920 tons   | 3010 tons  | 3515 tons  |         |
| 4 | 3139 | C | Open ullage holes in tanks which are not gas-free must be protected by _____.   | PV valves  | warning signs                                       | flame screens  | stop-check valves  |         |
| 4 | 3140 | A | Hatches on small passenger vessels operating on exposed waters and exposed to the weather _____.  | must be watertight                                 | must be open at all times                           | need not be watertight                                     | None of the above  |         |
| 4 | 3141 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 4.81 ft                               | Available GM 4.69 ft                                | Available GM 4.60 ft                                       | Available GM 4.28 ft   | ST-0108 |
| 4 | 3142 | D | In the machinery space of all uninspected motor vessels, there must be one type B-II hand portable fire extinguisher for every _____. (Uninspected Vessel Regulations)  | 500 S.H.P. of the main engines or fraction thereof | 1000 S.H.P. of the main engines or fraction thereof | 500 B.H.P. of the main engines or fraction thereof         | 1000 B.H.P. of the main engines or fraction thereof                    |         |
| 4 | 3143 | C | The instructions for rescue boats and liferafts on an OSV must be approved by the _____.  | lease operator                                     | Minerals Management Service                         | Coast Guard  | person-in-charge of the unit   |         |
| 4 | 3144 | D | On a lifeboat equipped with Rottmer-type releasing gear, turning the releasing lever releases _____.  | the painter  | the after boat fall only if the boat is waterborne  | both falls at the same time only if the boat is waterborne | both falls at the same time even if the boat has not reached the water |         |

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|---|------|---|---|--|---|---|---|---------|
| 4 | 3145 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port forward column below the waterline. You should pump from tank _____.  | C1P  | 8P  | 1P  | 2S  |         |
| 4 | 3146 | B | The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.89 feet. See the distribution of the cargo to be loaded. Use the white pages of the Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 263.4 feet  | LCG-FP 266.6 feet   | LCG-FP 267.8 feet                                       | LCG-FP 269.4 feet   | ST-0109 |
| 4 | 3147 | D | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the starboard forward column below the waterline. You should pump from tank _____.  | C1S  | 8S  | 2P  | 1S  |         |
| 4 | 3148 | C | The SS AMERICAN MARINER arrived in port with drafts of: FWD 29'-06", AFT 29'-02". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.          | FWD 29'-07", AFT 29'-08"   | FWD 29'-05", AFT 29'-10"  | FWD 29'-03", AFT 30'-00"                                | FWD 29'-01", AFT 30'-02"  | ST-0110 |
| 4 | 3149 | D | To find the cause of a gasoline engine's failure to start, you should _____.  | break the joint in the fuel line at the engine and let the gas run in the bilges | disconnect the wires at the spark plugs and make the spark jump the gap | prime the engine with ether through spark plug openings | ventilate the space, then check the battery, spark plugs, carburetor, and fuel line |         |
| 4 | 3150 | C | Your vessel must have a B-II fire extinguisher. Which extinguisher fulfills this requirement? (small passenger vessel regulations)  | 4 lb. carbon dioxide   | 4 lb. dry chemical  | 15 lb. carbon dioxide                                   | 12 gallon foam  |         |
| 4 | 3151 | B | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the starboard aft column below the waterline. You should pump from tank _____.  | C1S  | 9S  | 2P  | 2S  |         |
| 4 | 3152 | D | U. S. Coast Guard approved work vests may be substituted life jackets _____. (Uninspected Vessel Regulations)   | aboard work vessels  | aboard towing vessels   | aboard sailing vessels                                  | under no circumstances  |         |

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|---|------|---|---|-------------------------------------|--|--|--|--|
| 4 | 3153 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers severe damage to the port aft column below the waterline. You should pump from tank _____.                           | C1S                                 | 9S   | 10P  | 2S   |  |
| 4 | 3154 | A | How many escape routes must normally exist from all general areas accessible to the passengers or where the crew may be quartered or normally employed? (small passenger vessel regulations)                | Two                                 | Three  | Four   | Five   |  |
| 4 | 3155 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port center column below the waterline. Among the tanks from which you should pump is tank _____.      | C1S                                 | 9S   | 9P   | 2S   |  |
| 4 | 3156 | D | Lifesaving regulations in Subchapter W require that a fire drill include _____.   | starting the fire pumps             | checking the operation of watertight doors   | checking arrangements for abandon ship                       | All of the above                                   |  |
| 4 | 3157 | B | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard center column below the waterline. Among the tanks from which you should pump is tank _____. | C1S                                 | 9S   | 9P   | 2P   |  |
| 4 | 3158 | C | Electric generators can be protected against overload _____.  | with switches                       | with a governor on the engine  | with fuses or circuit breakers                               | by using heavy wire                                |  |
| 4 | 3159 | D | Fusible-link fire dampers are operated by _____.  | a break-glass and pull-cable system | electrical controls on the bridge  | a mechanical arm outside the vent duct                       | the heat of a fire melting the link                |  |
| 4 | 3160 | B | Fixed ballast, if used, may be _____. (small passenger vessel regulations)  | discharged or moved at any time     | moved temporarily for examination or repair of the vessel, when done under the supervision of an inspector | moved under the supervision of the owner, Master or shipyard | moved under any condition except extreme emergency |  |
| 4 | 3161 | A | The wooden plug fitted tightly in the vent of a damaged tank may prevent the tank from _____.   | filling completely                  | developing free surfaces   | developing free surface moments                              | collapsing   |  |
| 4 | 3162 | C | All life jackets and life buoys shall be marked with the vessel's name in letters at least _____. (small passenger vessel regulations)  | 1/2 inch high                       | 1 inch high  | Height not specified   | 1-1/2 inches high                                  |  |

|   |      |   |   |  |   |   |  |         |
|---|------|---|---|--|---|---|--|---------|
| 4 | 3163 | B | A continual worsening of the list or trim of any floating MODU indicates _____.   | negative GM  | progressive flooding  | structural failure  | an immediate need to counterflood  |         |
| 4 | 3164 | D | When discharging cargo from a tank barge, in which case may the cargo pass through or over the towing vessel?   | With permission from the person in charge of the towing vessel                     | With permission from the person in charge of the shore facility | When off-loading grade C cargo  | In no case   |         |
| 4 | 3165 | A | The wooden plug inserted in the vent of a damaged tank of a MODU should be removed in case it is decided to _____.  | pump from the damaged tank   | fight a fire  | abandon the rig   | use the crossover system   |         |
| 4 | 3166 | B | You are underway with a tow consisting of six barges containing hazardous chemicals. Which statement is FALSE concerning a cargo information card?  | It must be carried in the pilothouse, readily available for each chemical carried. | It must be posted on the lead barge of the tow only.            | It must be posted on each barge on the tow.                                   | It contains information on procedure for spills or leaks.                |         |
| 4 | 3167 | C | Topside icing that blocks freeing ports and scuppers _____.   | is usually below the center of gravity and has little effect on stability          | will cause water on deck to pocket and increase stability       | may decrease stability by increasing free surface effect due to water on deck | increases the effective freeboard and increases the wind-heel affect     |         |
| 4 | 3168 | D | The SS AMERICAN MARINER has on board 6080 tons of cargo with an LCG-FP of 270.71 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 270.8 feet  | LCG-FP 269.2 feet   | LCG-FP 267.6 feet   | LCG-FP 266.7 feet  | ST-0111 |
| 4 | 3169 | B | Which license or document enable a person to serve as person in charge of a tank barge which is transferring cargo?   | Operator of Uninspected Towing Vessels   | Certified Tankerman   | Able Seaman   | Ordinary Seaman/Wiper  |         |
| 4 | 3170 | C | What would be an example of a B-I extinguisher? (small passenger vessel regulations)  | 2.5 gallon foam  | 10 pound carbon dioxide   | 2 pound dry chemical  | 5 pound foam   |         |
| 4 | 3171 | A | Automatic fire dampers in ventilation systems are operated by use of _____.   | fusible links  | remotely operated valves  | C02 system pressure switches  | heat or smoke detectors  |         |
| 4 | 3172 | D | Your vessel has a gasoline engine and a mechanical exhaust ventilation system. BEFORE starting the engine, the exhaust blower should be run long enough to _____.   | warm up the exhaust blower motor   | provide a proper supply of fresh air for the engine(s)          | see the system is in good operating condition                                 | insure at least one complete change of air in the compartments concerned |         |
| 4 | 3173 | B | What is considered to be a B-II portable fire extinguisher?   | 2 pound dry chemical   | 2-1/2 gallon foam   | 4 pound carbon dioxide  | All of the above   |         |
| 4 | 3174 | A | What is considered to be a B-II portable fire extinguisher?   | 2-1/2 gallon foam  | 4 pound carbon dioxide  | 2 pound dry chemical  | All of the above   |         |

|   |      |   |   |  |  |  |  |         |
|---|------|---|---|--|--|--|--|---------|
| 4 | 3175 | C | The jettisoning of topside weight from a MODU serves what purpose?  | It returns the MODU to an even keel.                     | It reduces free surface effect.                        | It lowers the center of gravity.                       | It raises the center of gravity.                         |         |
| 4 | 3176 | A | The tops of vents from gasoline tanks should terminate _____.   | in open air  | inside cabins  | in machinery space                                     | underwater   |         |
| 4 | 3177 | C | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 25'-07", AFT 27'-01"                                 | FWD 25'-02", AFT 27'-06"                               | FWD 24'-10", AFT 27'-10"                               | FWD 24'-08", AFT 28'-00"                                 | ST-0112 |
| 4 | 3178 | D | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 23 while using a single belt loader to arrive at a desired mean keel draft of 28'-00"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.) | 2930 tons  | 3110 tons  | 3170 tons  | 3240 tons  |         |
| 4 | 3179 | A | What is NOT a requirement for storage batteries on tank barges?   | They may be located in cargo handling rooms              | They must be located in well ventilated spaces         | Each battery box must have a watertight lining         | They must be secured against movement                    |         |
| 4 | 3181 | C | Repairing damage to the hull of a MODU at or above the waterline reduces the threat of _____.   | free surface effects                                     | capsizing the MODU                                     | continued progressive flooding                         | wind overturning moments                                 |         |
| 4 | 3182 | B | What is the minimum number of portable fire extinguishers required on board a 45-foot motorboat having a fixed fire system on board? (Uninspected Vessel Regulations)   | 1 B-I  | 2 B-I  | 3 B-I  | 4 B-I  |         |
| 4 | 3183 | D | The order of importance in addressing damage control on a MODU is _____.  | control flooding, control fire, repair structural damage | restore vital services, control fire, control flooding | control fire, restore vital services, control flooding | control fire, control flooding, repair structural damage |         |
| 4 | 3184 | D | The center of buoyancy and the metacenter are in the line of action of the buoyant force _____.   | only when there is positive stability                    | only when there is negative stability                  | only when there is neutral stability                   | at all times   |         |
| 4 | 3185 | B | Control of flooding on a MODU should be addressed _____.  | first  | following control of fire                              | following restoration of vital services                | only if a threat exists                                  |         |
| 4 | 3186 | A | Using a sea anchor will _____.  | reduce the drift rate of the liferaft                    | keep the liferaft from turning over                    | aid in recovering the liferaft                         | increase your visibility                                 |         |
| 4 | 3187 | A | Repair of vital machinery and services on a MODU should be accomplished _____.  | after control of fire, flooding, and structural repairs  | immediately  | after control of fire, but before control of flooding  | after stability is restored                              |         |
| 4 | 3188 | D | The air spaces in the floor of an inflatable liferaft will provide protection against _____.  | asphyxiation from CO2                                    | loss of air in the sides of the raft                   | rough seas   | cold water temperatures                                  |         |
| 4 | 3189 | A | If a gasoline engine turns over freely but will not start, the cause is generally _____.  | a defective ignition system                              | low lube oil level                                     | weak valve springs                                     | too heavy a load   |         |

|   |      |   |  |  |   |   |  |         |
|---|------|---|--|--|---|---|--|---------|
| 4 | 3191 | A | To assess the potential for progressive flooding aboard a damaged MODU, you must know the _____.   | integrity of the watertight boundaries                                 | capacity of the water sprinkler systems                                   | operation of the machinery space bilge level alarms                 | All of the above   |         |
| 4 | 3192 | A | Which statement is FALSE concerning the use of approved buoyant work vests on board uninspected towboats? (Uninspected Vessel Regulations)   | They may be substituted for up to 50% of the required life preservers. | They shall be of an approved type.  | They shall be stowed separately from required lifesaving equipment. | They may be worn by crew members when working near or over the water.                      |         |
| 4 | 3193 | D | Progressive flooding on a MODU may be indicated by _____.  | ballast control alarms   | excessive draft   | excessive list or trim  | a continual worsening of list or trim  |         |
| 4 | 3194 | A | Generally, what is used to inflate liferafts?  | non-toxic gas  | Oxygen  | Hydrogen  | Helium   |         |
| 4 | 3195 | D | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 18'-05", AFT 21'-05"   | FWD 18'-00", AFT 21'-10"  | FWD 18'-06", AFT 22'-01"  | FWD 17'-10", AFT 22'-00"   | ST-0113 |
| 4 | 3196 | A | What shall be conducted during a fire and boat drill?  | All watertight doors in the vicinity of the drill shall be operated.   | All lifeboat equipment shall be examined.                                 | Fire pumps shall be started and all exterior outlets opened.        | All of the above   |         |
| 4 | 3197 | C | The best information on the nature and extent of damage on a MODU is obtained from _____.  | alarms and monitoring devices  | the toolpusher  | personnel at the scene of the damage                                | person in charge of the affected spaces  |         |
| 4 | 3198 | D | Starting motors, generators, and other spark producing devices should be mounted as high above the bilges as possible to _____.  | keep them dry when the bilges are full of water                        | keep them cool when the vessel is underway                                | make them more accessible for repairs                               | prevent accidental ignition of any gasoline vapors that may have accumulated in the bilges |         |
| 4 | 3199 | D | You are towing a 1,000 GT gasoline tank barge which is not gas free. By regulation, cargo tank hatches, ullage holes, and Butterworth plates on the barge may _____.               | not be open without flame screens under any circumstances              | be open without flame screens in good weather from 16 May to 15 September | be open without flame screens when the barge is empty               | be open without flame screens under the supervision of the senior crew member on duty      |         |
| 4 | 3200 | A | Which circumstance concerning an inspected passenger vessel would require knowledge and approval of the Officer in Charge, Marine Inspection? (small passenger vessel regulations) | The removal of a watertight bulkhead                                   | A minor overhaul of the propulsion machinery                              | Renewal of a FCC Certificate for a radiotelephone                   | All of the above   |         |



|   |      |   |  |   |  |  |   |        |
|---|------|---|--|---|--|--|---|--------|
| 4 | 3201 | D | The stamped full weight of a 100-lb. CO2 bottle is 314 lbs. What is the minimum weight of the bottle before it has to be recharged?  | 282 lbs.                                | 294 lbs.   | 300 lbs.   | 304 lbs.  |        |
| 4 | 3202 | B | Which of these approved lifesaving devices must a small passenger vessel carrying passengers for hire carry for each person on board? (small passenger vessel regulations) | Buoyant cushion                         | Life jacket  | Ring buoy  | Buoyant vest  |        |
| 4 | 3203 | A | The inside light in an inflatable liferaft is turned on _____.   | automatically as the liferaft inflates  | with a switch near the boarding handle             | at night because the light has a photosensitive switch | by screwing the bulb in after the raft inflates             |        |
| 4 | 3204 | B | In accordance with SOLAS, the batteries that power interior lighting in inflatable liferafts can be made to last longer by _____.  | unscrewing the bulb during the daylight | switching the light on only when necessary         | taking no action as there is no way on saving power    | taking no action as they shut off automatically in daylight |        |
| 4 | 3205 | B | On a sailing vessel, it is best to approach a person in the water by placing them on your _____.   | leeward side                            | windward side                                      | bow  | transom   |        |
| 4 | 3206 | D | Your tow contains a barge carrying carbon tetrachloride. What is NOT required?   | Cargo warning signs on barge            | Cargo information card on barge                    | Cargo information card in pilothouse                   | Certificated tankerman on towboat                           |        |
| 4 | 3207 | D | The lights on the outside of the canopy of an inflatable liferaft operate _____.   | by turning the globe clockwise          | by a switch at the light                           | by a light sensor                                      | automatically when the raft is inflated                     |        |
| 4 | 3208 | B | Water pockets on the underside of an inflatable liferaft are for _____.  | catching rain water                     | stability  | easy drainage  | maneuverability   |        |
| 4 | 3209 | D | In the illustration shown, the floating sheath knife is indicated as item number _____.  | 4                                       | 8  | 22   | 23  | D014SA |
| 4 | 3210 | C | On a small passenger vessel, 58 feet in length, carrying 52 passengers the fire pump shall have a minimum pumping capacity of _____.                                       | 10 gallons per minute                   | 25 gallons per minute                              | 50 gallons per minute                                  | 100 gallons per minute                                      |        |
| 4 | 3211 | A | What is placed on the underside of an inflatable liferaft to help prevent it from being skidded by the wind or overturned?   | Ballast bags                            | A keel   | Strikes  | Sea anchor  |        |
| 4 | 3212 | B | Before starting a gasoline engine on a motorboat, you should make sure for safety that _____.  | the gasoline tank is full               | the bilges, cabins, etc. are thoroughly ventilated | you have fresh water on board                          | Each of the above is followed                               |        |
| 4 | 3213 | D | A safety feature provided on all inflatable liferafts is _____.  | overhead safety straps                  | built in seats                                     | internal releasing hooks                               | water stabilizing pockets                                   |        |

|   |      |   |  |   |   |  |   |         |
|---|------|---|--|---|---|--|---|---------|
| 4 | 3214 | D | What does the "B" on a "B-II" fire extinguisher refer to? (Uninspected Vessel Regulations)   | Size of the applicator  | Size of the nozzle                            | Size of the extinguisher                         | Class of fire that the extinguisher should be used on |         |
| 4 | 3215 | B | The jackknife stored on an inflatable liferaft will always be located _____.   | in one of the equipment bags                                  | in a special pocket near the forward entrance | on a cord hanging from the canopy                | in a pocket on the first aid kit                      |         |
| 4 | 3216 | C | Gasoline fuel tank vents should terminate _____.   | in the engine compartment                                     | in the fuel tank space                        | above or outside the hull                        | at the most convenient location                       |         |
| 4 | 3217 | D | Which of the devices listed will prevent an inflated liferaft from being pulled under by a vessel which sinks in water over 100 feet deep?   | The hydrostatic release                                       | A shear pin                                   | A rottmer release                                | A weak link in the painter                            |         |
| 4 | 3218 | A | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 3 while using a single belt loader to arrive at a desired mean keel draft of 27'-07"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.) | 2500 tons   | 2550 tons                                     | 2600 tons  | 2650 tons   |         |
| 4 | 3219 | C | The final inspection responsibility for seeing that a tank barge is provided with the required equipment and fittings in good and serviceable condition prior to loading cargo rests with the _____.   | terminal operator   | owner of the barge                            | tankerman or person in charge of loading         | charterer through the Master of the towing vessel     |         |
| 4 | 3220 | B | All vessels not required to have a power driven fire pump shall carry _____. (small passenger vessel regulations)  | a suitable, detachable pump usable for fire fighting purposes | at least three 2-1/2 gallon fire buckets      | an emergency hand fire and bilge pump            | not less than three hand fire pumps                   |         |
| 4 | 3221 | C | A MODU with a displacement of 15,000 kips has a KG of 20 feet. A load of 300 kips is shifted from a VCG of 100 feet to a VCG of 10 feet. How far does the KG move?   | 0.2 foot downward   | 0.2 foot upward                               | 1.8 feet downward                                | 1.8 feet upward                                       |         |
| 4 | 3223 | B | After 1 September 1992, in the North Pacific area, a documented 75-foot fishing vessel operating in cold waters 25 miles off the coast must have at least a(n) _____.  | buoyant cushion for each person on board                      | inflatable liferaft with a SOLAS pack         | inflatable buoyant apparatus with EPIRB attached | approved rescue boat                                  |         |
| 4 | 3225 | A | The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-05", AFT 20'-11". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.   | FWD 18'-07", AFT 20'-11"                                      | FWD 18'-09", AFT 20'-09"                      | FWD 18'-11", AFT 20'-07"                         | FWD 19'-01", AFT 20'-05"                              | ST-0114 |

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|---|------|---|--|---|---|--|---|--|
| 4 | 3226 | C | The sign used to caution persons approaching the gangway of a tank barge during cargo transfer reads _____.  | "Warning, Keep Off, Stay Clear"   | "Danger, Do Not Board"  | "Warning, No Smoking, No Open Lights, No Visitors"   | "Dangerous Cargo Being Transferred"                           |  |
| 4 | 3227 | C | A semisubmersible, while floating level, displaces 18,000 long tons. Bulk, weighing 400 long tons, is placed in P-tanks located 80 feet to starboard of the centerline. What is the new TCG? | 0.02 foot starboard of centerline                                       | 0.32 foot starboard of centerline   | 1.74 feet starboard of centerline  | 1.78 feet starboard of centerline                             |  |
| 4 | 3228 | D | A fuel line breaks, sprays fuel on the hot exhaust manifold, and catches fire. Your FIRST action should be to _____.   | batten down the engine room   | start the fire pump   | apply carbon dioxide to the fire   | shut off the fuel supply                                      |  |
| 4 | 3229 | A | The engine head, block, and exhaust manifold shall be _____. (small passenger vessel regulations)  | water jacketed  | air cooled  | preheated prior to starting  | drained weekly  |  |
| 4 | 3230 | D | Which statement is TRUE concerning a power driven fire pump on board a small passenger vessel?   | The hand fire pump shall be located adjacent to the main engine spaces. | It shall be of at least 2 gallons per minute capacity.                        | It shall be painted red.   | It may also serve as a bilge pump.                            |  |
| 4 | 3231 | D | A lifeline must be connected to the liferaft _____.  | at the bow  | at the stern  | in the middle  | all around  |  |
| 4 | 3232 | D | Which statement is TRUE concerning work vests aboard a vessel? (Uninspected Vessel Regulations)  | They may be worn during drills.   | They may be substituted for up to 10% of the required lifesaving gear aboard. | They need not be of an approved type.  | They must be stowed separately from approved life preservers. |  |
| 4 | 3234 | C | The abandon ship signal is _____.  | a continuous ringing of general alarm bells for at least 10 seconds     | a continuous ringing of the general alarm, and sounding of the ship's whistle | more than 6 short blasts and 1 long blast of the ship's whistle and the same signal on the general alarm bells | a continuous sounding of the ship's whistle                   |  |
| 4 | 3235 | C | A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is added at a VCG of 150 feet. The change in KG is _____.  | 1.09 feet   | 1.60 feet   | 1.58 feet  | 2.73 feet   |  |
| 4 | 3236 | C | While at your lifeboat station, you hear a signal consisting of two short blasts of the whistle. This signal indicates _____.  | "abandon ship"  | "commence lowering boats"   | "stop lowering boats"  | "secure from boat stations"                                   |  |

|   |      |   |  |   |   |   |  |         |
|---|------|---|--|---|---|---|--|---------|
| 4 | 3237 | C | A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG 150 feet. The change in KG is _____.  | 1.09 feet   | 1.60 feet   | 1.64 feet   | 2.73 feet  |         |
| 4 | 3238 | D | During fueling, all doors, hatches, and ports _____.   | to windward should be opened and the ones to leeward should be closed | to leeward should be opened and the ones to windward should be closed | should be opened  | should be closed   |         |
| 4 | 3239 | B | Your tow includes a loaded chlorine barge. After inspecting the tow, the mate reports that he hears a hissing sound coming from the safety valves. Where will you find information on emergency procedures concerning the uncontrolled release of cargo?   | Barge's Certificate of Inspection                                     | Cargo Information Card on your towboat                                | Cargo Manifest or loading paper                                     | Dangerous Cargo Regulations  |         |
| 4 | 3240 | B | When a vessel is required to have a power-driven fire pump, the pump may also be used for _____.<br>(small passenger vessel regulations)   | the drinking water supply system                                      | the bilge pump  | engine cooling water  | None of the above  |         |
| 4 | 3241 | B | The DEEP DRILLER, at a draft of 45 feet and total vertical moments of 981,567 ft-long tons, floods 2068.7 long tons of sea water through the overboard discharge into tanks 3 and 8 on both sides. The VCG of the added ballast is 7.22 feet. The shift in the height of the center of gravity is _____. | 0.93 foot   | 6.16 feet   | 6.95 feet   | 7.88 feet  |         |
| 4 | 3242 | B | A vessel carrying passengers for hire shall have on board an approved life jacket _____. (small passenger vessel regulations)  | for every passenger on board  | for every person on board, plus 10% childrens' life jackets           | for every person on board, plus 10% additional on upper deck in box | or buoyant cushion for every person on board plus 10% for children |         |
| 4 | 3243 | D | If there's a fire aboard your vessel, you should FIRST _____.  | notify the Coast Guard  | cut off air supply to the fire  | have passengers put on life preservers                              | sound the alarm  |         |
| 4 | 3244 | B | A person may operate an air compressor in which of the following areas on board a tank barge?  | Pumproom  | Generator room  | A space adjacent to a cargo tank                                    | A space two meters from a cargo valve                              |         |
| 4 | 3245 | A | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 25'-02", AFT 29'-10"  | FWD 25'-06", AFT 29'-06"  | FWD 27'-10", AFT 26'-02"  | FWD 29'-11", AFT 25'-04"   | ST-0115 |

|   |      |   |   |   |  |   |  |         |
|---|------|---|---|---|--|---|--|---------|
| 4 | 3246 | D | A loaded hopper barge with independent tanks has a placard, with alternating red and white quadrants, on each side and end. Which statement concerning this barge is TRUE?  | The cargo will spontaneously ignite if released to the atmosphere.                        | You must operate this barge as a lead barge.                           | The barge should be spotted as far away from the towboat as possible. | The barge must be in a protected position within the tow.                                  |         |
| 4 | 3247 | C | A semisubmersible with displacement of 19,700 long tons and KG of 50.96 feet loads 300 long tons of barite into P-tanks located 120 feet above the keel. What is the change in KG?  | 0.79 foot upward  | 1.00 foot upward   | 1.04 feet upward  | 1.83 feet upward   |         |
| 4 | 3249 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 231.0 ft  | 234.3 ft   | 244.6 ft  | 251.5 ft   | ST-0116 |
| 4 | 3250 | D | Which statement is TRUE concerning fire hose on a small passenger vessel?   | Fire hose shall be at least 3/4" outside diameter.  | One length of fire hose shall be provided for every two fire hydrants. | All fittings on hoses shall be of steel or other ferrous metal.       | A length of hose with nozzle attached shall be attached to each fire hydrant at all times. |         |
| 4 | 3251 | D | A hydrostatic release mechanism for a liferaft _____.   | must be wet before it will release  | should be kept in a watertight cover except in an emergency            | will inflate the raft in its cradle if operated manually              | must be submerged to a certain depth to release automatically                              |         |
| 4 | 3252 | A | Before any machinery is put in operation, you should _____.   | ventilate all compartments, see that the machinery is clean and there are no obstructions | just turn the key and start up   | take for granted that there are no fuel leaks                         | assume there are no volatile fumes in the engine space                                     |         |
| 4 | 3253 | C | A semisubmersible displacing 17,600 long tons has an LCG 3.2 feet forward of amidships. Bulk, weighing 400 long tons, is loaded into P-tanks located 50.8 feet aft of amidships. What is the new LCG?   | 0.80 foot forward of amidships  | 1.20 feet forward of amidships   | 2.00 feet forward of amidships  | 4.40 feet forward of amidships   |         |
| 4 | 3254 | B | All uninspected motor vessels constructed after 25 April 1940, which use fuel with a flash point of 110°F (43°C) or less, shall have at least what number of ventilator ducts for the removal of explosive or flammable gases from every engine and fuel tank compartment? (Uninspected Vessel Regulations) | 1   | 2  | 3   | 4  |         |

|   |      |   |   |  |  |   |   |         |
|---|------|---|---|--|--|---|---|---------|
| 4 | 3255 | A | A MODU displacing 28,000 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG of 150 feet. To maintain draft, ballast is added at a VCG of 10 feet. What is the change in KG?  | 2.5 feet downward  | 2.0 feet downward                                      | 1.5 feet downward                                   | 1.0 foot downward                             |         |
| 4 | 3256 | C | Gasoline vapor tends to collect _____.  | above the floor plates of the bilges                       | above the carburetor level                             | at the lowest point of the bilge areas              | at no particular level                        |         |
| 4 | 3257 | A | A semisubmersible with a displacement of 20,000 tons and a KG of 60.0 feet loads 300 tons at a VCG of 120 feet. To maintain draft, ballast is discharged from a height of 20 feet. What is the change in KG?  | 1.5 feet upward  | 1.5 feet downward                                      | 0.8 foot upward                                     | 0.8 foot downward                             |         |
| 4 | 3258 | C | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 20 while using a single belt loader to arrive at a desired mean keel draft of 24'-10"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.) | 1540 tons  | 1590 tons  | 1645 tons   | 1670 tons                                     |         |
| 4 | 3259 | D | Why is a warning sign displayed at the gangway or access point of a barge during cargo transfer?  | To keep visitors away from the barge                       | To prohibit smoking                                    | To prohibit open lights                             | All of the above                              |         |
| 4 | 3260 | A | A length of fire hose shall be _____. (small passenger vessel regulations)  | attached to each fire hydrant at all times                 | equipped with a rotary sprinkler head                  | marked with the lot number and wholesale price      | not more than 10 feet in length               |         |
| 4 | 3261 | D | A semisubmersible with a displacement of 20,000 tons and a KG of 60.0 feet loads 300 tons at a VCG of 120 feet. What is the change in KG?   | 1.32 feet downward   | 1.32 feet upward                                       | 0.89 foot downward                                  | 0.89 foot upward                              |         |
| 4 | 3263 | C | What is the operating principal of a flash type evaporator?   | Sea water is heated to boiling temperature under a vacuum. | Sea water is passed over heated plates in a thin film. | Heated sea water is injected into a vacuum chamber. | Sea water is forced through a heated eductor. |         |
| 4 | 3264 | D | If you reef a marconi mainsail, the sail area _____.  | stays the same   | moves aft  | becomes more  | becomes less                                  |         |
| 4 | 3265 | C | A semisubmersible with a displacement of 20,000 tons and KG of 52 feet discharges 300 long tons of barite from P-tanks located 120 feet above the keel. Ballast added to maintain draft has a VCG of 20 feet. What is the change in KG?   | 0.49 foot increase   | 0.50 foot decrease                                     | 1.50 feet decrease                                  | 1.80 feet decrease                            |         |
| 4 | 3266 | A | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.  | FWD 17'-11", AFT 22'-07"                                   | FWD 17'-09", AFT 23'-01"                               | FWD 17'-05", AFT 23'-04"                            | FWD 17'-02", AFT 23'-04"                      | ST-0117 |

|   |      |   |  |   |                                   |                                     |   |  |
|---|------|---|--|---|-----------------------------------|-------------------------------------|---|--|
| 4 | 3267 | C | A MODU displacing 30,500 long tons has a KG of 60 feet. A weight of 500 long tons is discharged from a VCG of 150 feet. What is the change in KG?  | 2.5 feet downward                               | 2.0 feet downward                 | 1.5 feet downward                   | 1.0 foot downward   |  |
| 4 | 3268 | B | Diesel engines are considered safer than gasoline engines because _____.   | they are more heavily built                     | the fuel used is less volatile    | they can be easily reversed         | they operate at a lower speed   |  |
| 4 | 3269 | A | What is the purpose of the liferaft's hydrostatic release?   | To release raft automatically as the ship sinks | To inflate the raft automatically | To test rafts hydrostatically       | None of the above   |  |
| 4 | 3270 | B | Which portable fire extinguisher is required just outside the exit of the propulsion machinery space of a 75-ton passenger vessel?   | 2-1/2 gallon foam extinguisher                  | 15 lb. CO2 extinguisher           | 2 lb. dry chemical extinguisher     | None of the above   |  |
| 4 | 3271 | C | A MODU displacing 29,500 long tons has a KG of 60 feet. A weight of 500 long tons is added at a VCG of 150 feet. What is the change in KG?   | 2.5 feet upward                                 | 2.0 feet upward                   | 1.5 feet upward                     | 1.0 foot upward   |  |
| 4 | 3272 | C | Where should life jackets be stowed? (Small Passenger Vessel Regulations)  | In the forepeak                                 | In the wheelhouse                 | Throughout the accommodation spaces | In locked watertight and fireproof containers on or above the main deck |  |
| 4 | 3273 | C | A semisubmersible with a displacement of 20,000 long tons and a KG of 52 feet discharges 300 long tons of barite from P-tanks located 120 feet above the keel. What is the change in KG? | 0.79 foot downward                              | 1.00 foot downward                | 1.04 feet downward                  | 1.83 feet downward  |  |
| 4 | 3274 | B | Vessels required to be equipped with an approved backfire flame arrester are _____.  | those with diesel engines                       | all those with gasoline engines   | those with large engines only       | None of the above   |  |
| 4 | 3275 | B | Your present displacement is 15,000 short tons. The KG at this displacement is 60 feet. 100 short tons of casing are added at a VCG of 75 feet for an ocean tow. What is the new KG?     | 59.09 feet                                      | 60.09 feet                        | 61.09 feet                          | 62.09 feet  |  |
| 4 | 3276 | B | While at your lifeboat station, you hear a signal consisting of one short blast of the whistle. This signal indicates _____.   | abandon ship                                    | commence lowering boats           | stop lowering boats                 | secure from boat stations   |  |
| 4 | 3277 | B | When starting a long ocean tow at a displacement of 18,000 short tons and a KG of 70 feet, you dump 100 short tons of water which had a VCG of 88 feet. What is the new KG?              | 59.9 feet                                       | 69.9 feet                         | 79.9 feet                           | 89.9 feet   |  |

|   |      |   |  |   |   |  |  |         |
|---|------|---|--|---|---|--|--|---------|
| 4 | 3278 | D | Gasoline tanks should be filled _____.   | to the top to expel all vapors from the tanks   | to the top so the operator is certain how much fuel he has aboard                         | with only sufficient fuel for the planned trip so excess gasoline is not carried | to near the top with some space allowed for gasoline expansion                       |         |
| 4 | 3279 | C | You have orders to drop off a barge loaded with propylene oxide at a fleet. In doing so, you must ensure that _____.   | all wing voids and rakes are pumped dry before tying off the barge  | the barge is moored next to the bank where it will be protected from a possible collision | the barge is under the care of a watchman  | a rake end is facing upstream to minimize the effect of current on the mooring lines |         |
| 4 | 3280 | D | Which type of fire extinguishers are permitted on inspected vessels? (small passenger vessel regulations)  | Foam  | Carbon dioxide  | Dry chemical   | All of the above   |         |
| 4 | 3281 | D | Preparing to move on a location, you find that you must remove 450 tons of drill water, with a VCG of 8 feet, to enable you to meet the draft limitations. You started with a displacement of 17,000 tons and a KG of 69 feet. What is the KG after pumping out the drill water? | 49.13 feet  | 59.13 feet  | 69.13 feet   | 70.66 feet   |         |
| 4 | 3282 | C | What form of venting of cargo tanks is allowed for a tank barge certificated to carry grade B petroleum products?  | Gooseneck vents only  | Gooseneck vents with flame screens  | Individual pressure-vacuum relief valves with flame screens                      | Straight vents with flame screens  |         |
| 4 | 3283 | D | The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?  | They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire. | They may be kept open if the ventilation or air conditioning system is shut down.         | They are to be kept closed at all times.   | They may be kept open if they can be automatically closed from the bridge.           |         |
| 4 | 3284 | B | Unless the COI is endorsed for adults only, there shall be provided a number of approved life jackets suitable for children equal to at least _____. (small passenger vessel regulations)  | 20% of the passengers carried   | 10% of the total number of persons carried  | 10% of the passengers carried  | 20% of the total number of persons carried   |         |
| 4 | 3285 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.   | 271.2 ft  | 288.8 ft  | 292.3 ft   | 307.2 ft   | ST-0118 |



|   |      |   |   |  |  |  |   |         |
|---|------|---|---|--|--|--|---|---------|
| 4 | 3286 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 270.6 ft   | 261.2 ft   | 250.5 ft   | 246.8 ft  | ST-0119 |
| 4 | 3287 | A | A vessel displacing 18,000 tons has a KG of 50 feet. A crane is used to lift cargo weighing 20 long tons from a supply vessel. When lifting, the head of the crane boom is 150 feet above the keel. What is the change in KG? | 0.11 foot  | 0.17 foot  | 0.25 foot  | 0.32 foot   |         |
| 4 | 3289 | D | A warship indicates that it wishes to communicate with a merchant ship by hoisting _____.   | the merchant ship's identity signal and keeping it hoisted during the entire communication | the national ensign of the merchant vessel at the starboard yard | the flags MV close up until acknowledged and then lowering them to the dip | the code pennant, and keeping it flying during the entire communication |         |
| 4 | 3290 | A | On vessels that are required to have fixed carbon dioxide fire extinguishing systems, the controls to operate the system shall be installed in an accessible location _____. (small passenger vessel regulations)             | outside the space protected  | inside the space protected                                       | at the carbon dioxide cylinders  | in a padlocked waterproof metal box                                     |         |
| 4 | 3291 | A | A semisubmersible with a displacement of 18,117.7 long tons and a KG of 52.0 feet discharges 200 long tons from a KG of 130 feet. To remain at draft, ballast is added at a height of 10 feet. What is the change in KG?      | 1.32 feet downward   | 1.32 feet upward   | 0.87 foot downward   | 0.87 foot upward  |         |
| 4 | 3292 | C | Upon completion of fueling a gasoline driven vessel it is necessary to _____.   | keep ports, doors, windows, and hatches closed   | start engines immediately  | ventilate before starting engine   | None of the above   |         |
| 4 | 3293 | D | Your sailing vessel is docked during a storm and is in continuous motion. If a mooring line parts due to vessel motion, it will most likely do so _____.  | where it is made fast on the vessel  | midway between the vessel and the dock                           | at the eye   | at the chock  |         |
| 4 | 3294 | A | What is the purpose of the liferaft hydrostatic release?  | To release the liferaft from the cradle automatically as the ship sinks                    | To inflate the raft automatically                                | To test rafts hydrostatically  | None of the above   |         |
| 4 | 3295 | B | A semisubmersible floating in sea water displaces 20,000 long tons. She has vertical moments of 1,000,000 foot-long tons. What is the new KG if 300 long tons are added at a VCG of 50 feet?                                  | 49.2 feet  | 50.0 feet  | 50.8 feet  | 57.5 feet   |         |

|   |      |   |   |  |   |  |                                |  |
|---|------|---|---|--|---|--|--------------------------------|--|
| 4 | 3296 | A | Which statement is TRUE concerning fuel vapors on a vessel?   | Fuel vapors gather in the lowest portions of the vessel. | Fuel vapors can only be ignited by an open flame. | Vent outlets should be located above the level of the carburetor air intake. | None of the above              |  |
| 4 | 3297 | C | A floating MODU displacing 20,000 long tons with a VCG of 50 feet loads 100 long tons at 100 feet above the baseline and 200 long tons at 130 feet above the baseline. What is the new KG?  | 49.0 feet  | 50.0 feet   | 51.0 feet  | 51.8 feet                      |  |
| 4 | 3298 | B | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 2, 6, & 10, while using a single belt loader, to arrive at a desired mean keel draft of 27'-07" (use the Guidance Manual for Loading M.V. GRAND HAVEN) | 510 tons per hatch                                       | 530 tons per hatch                                | 590 tons per hatch   | 610 tons per hatch             |  |
| 4 | 3299 | A | Which signal must you display at night on a docked tank barge to show that it is loading or discharging flammable liquid cargo?   | Red light  | Flashing amber light                              | ICC yellow light   | Two orange lights              |  |
| 4 | 3300 | A | How many portable fire extinguishers are required to be located inside the machinery space of a small passenger vessel?   | None are required  | One B-I, C-I                                      | One B-II, C-II   | One B-II                       |  |
| 4 | 3301 | B | A semisubmersible, while floating level, displaces 25,000 long tons. LCG is 2 feet forward of amidships. Bulk, weighing 300 long tons, is placed in P-tanks located 50 feet aft of amidships. What is the new LCG?  | 1.43 feet forward of amidships                           | 1.38 feet forward of amidships                    | 0.62 foot forward of amidships   | 0.57 foot forward of amidships |  |
| 4 | 3302 | C | What is the minimum number of Type B-II hand portable fire extinguishers required to be aboard a 3,000 BHP, 99 GT harbor tug? (Uninspected Vessel Regulations)  | 2  | 3   | 5  | 6                              |  |
| 4 | 3303 | C | Your fireman's outfit includes a(n) _____.  | chemical protection face shield                          | approved work vest                                | self-contained breathing apparatus   | marlinspike                    |  |
| 4 | 3304 | D | If your passenger vessel has been issued a stability letter, it must be _____.  | filed in the ship's office                               | posted in a passenger area                        | posted adjacent to the Certificate of Inspection                             | posted in the pilothouse       |  |

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|---|------|---|--|---|--|--|---|---------|
| 4 | 3305 | A | The height of the transverse metacenter for a MODU is 62.44 feet. The height of the center of gravity is 56.10 feet, and the transverse free surface correction is 1.21 feet. What is the value of the metacentric height corrected for transverse free surface effects? | 5.13 feet   | 6.34 feet                                | 8.76 feet  | 12.10 feet  |         |
| 4 | 3306 | B | The SS AMERICAN MARINER will sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the drafts.   | FWD 26'-09", AFT 28'-05"                                    | FWD 26'-05", AFT 28'-07"                 | FWD 26'-04", AFT 28'-10"                             | FWD 26'-00", AFT 29'-00"                          | ST-0120 |
| 4 | 3307 | C | You are signaling by flag hoist using the International Code of Signals. You wish to send the signals CL and IW and have them read in that order. What would ensure this?  | Hoist CL from the starboard yard and IW from the port yard. | Hoist CLIW together.                     | Hoist CL tackline IW                                 | Any of the above will ensure the correct reading. |         |
| 4 | 3308 | C | The quickest method to stop a small diesel engine whose throttle or governor has become stuck open is to _____.  | drain the fuel tank   | turn off the ignition switch             | close the fuel supply valve                          | apply the shaft brake                             |         |
| 4 | 3309 | C | The exhaust pipe must be gas tight throughout its entire length otherwise _____.   | bilge water may enter the exhaust pipe                      | entry of air may cause vapor lock        | carbon monoxide may enter the interior of the vessel | the joint gaskets may be blown                    |         |
| 4 | 3310 | D | Fixed carbon dioxide fire extinguishing systems shall be installed to protect enclosed machinery and fuel tank spaces of all vessels using gasoline or other fuel having a flash point of _____. (small passenger vessel regulations)                                    | 0°F or lower  | 75°F or lower                            | 90°F or lower  | 110°F or lower                                    |         |
| 4 | 3311 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 3.51 ft  | Available GM 3.60 ft                     | Available GM 3.98 ft                                 | Available GM 4.28 ft                              | ST-0121 |
| 4 | 3312 | A | By regulation, life preservers aboard an uninspected towing vessel must be _____. (Uninspected Vessel Regulations)   | readily accessible  | securely stowed                          | stored in sealed containers                          | stowed with the emergency provisions              |         |
| 4 | 3313 | C | If the hydrostatic release mechanism for an inflatable liferaft is not periodically serviced and becomes inoperable, it will fail to _____.  | set the water lights on immersion                           | release the dye marker from the liferaft | free the liferaft from the vessel                    | break the seal on the carbon dioxide cylinder     |         |
| 4 | 3314 | B | Which device is required to be installed under the carburetor of a gasoline engine? (small passenger vessel regulations)   | Box of sawdust  | Drip collector                           | Vent   | Flame arrestor ONLY                               |         |

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| 4 | 3315 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 271.2 ft   | 291.0 ft   | 288.8   | 305.3 ft                                | ST-0122 |
| 4 | 3316 | A | When supplemented by a comparable signal on the general alarm, what is the signal for boat stations or boat drill?  | More than six short blasts followed by one long blast of the whistle | A continuous blast of the whistle for a period of not less than 10 seconds | One long blast followed by three short blasts of the whistle  | Three short blasts of the whistle       |         |
| 4 | 3317 | D | You are in a lifeboat broadcasting a distress message. What information would be essential to your rescuers?  | The nature of the distress   | The time of day  | Your radio call sign  | Your position by latitude and longitude |         |
| 4 | 3318 | D | You discover a leak in the fuel line to the engine. You should FIRST _____.   | activate the CO2 system  | make a temporary repair with canvas or tape                                | start the bilge pump  | close the fuel valve at the tank        |         |
| 4 | 3319 | D | If you have a liquefied flammable gas barge in tow, which is NOT required of you with respect to the barge and its cargo?   | Make periodic inspections of bilges.                                 | Keep the barge under constant surveillance.                                | Have a properly certificated tankerman or at least one licensed officer on board the towing vessel. | Verify ullage readings.                 |         |
| 4 | 3320 | A | If your vessel is required to have a fire ax on board, where should it be located? (small passenger vessel regulations)   | In or adjacent to the primary operating station                      | In below-decks passenger accommodations                                    | Just outside the engine room access   | In the galley near the stove            |         |
| 4 | 3321 | D | A semisubmersible displacing 18,000 long tons has an LCG 2 feet forward of amidships. Bulk, weighing 400 long tons, is discharged from P-tanks located 50.8 feet aft of amidships. What is the new LCG? | 0.8 foot forward of amidships  | 1.20 feet forward of amidships   | 3.11 feet forward of amidships  | 3.20 feet forward of amidships          |         |
| 4 | 3322 | B | If your vessel is certificated to carry 10 persons, including both adults and children, how many life jackets are you required to carry on board? (small passenger vessel regulations)                  | 11 adult   | 10 adult and 1 child   | 10 adult and 5 child  | 10 adult                                |         |
| 4 | 3323 | A | A semisubmersible, with a TCG of 0.5 foot to port, displaces 20,000 long tons. Bulk, weighing 400 long tons, is loaded in P-tanks located 50 feet starboard to the centerline. What is the new TCG?     | 0.49 foot starboard of centerline                                    | 0.51 foot starboard of centerline  | 0.99 foot starboard of centerline   | 1.49 feet starboard of centerline       |         |
| 4 | 3324 | C | How should cargo tank hatches be protected when the ullage opening is open and the tank NOT gas free?   | With gooseneck vents   | With warning signs   | With flame screens  | With pressure-vacuum relief valves      |         |

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| 4 | 3325 | D | A semisubmersible, with a TCG of 0.5 feet to port, displaces 20,000 long tons. Bulk, weighing 400 long tons, is discharged from P-tanks located 50 feet starboard of the centerline. What is the new TCG?                          | 1.03 feet starboard of centerline   | 0.53 foot starboard of centerline   | 0.53 foot port of centerline   | 1.53 feet port of centerline   |         |
| 4 | 3326 | A | The nozzle of a gasoline hose or can should be kept _____.   | in contact with the fill opening to guard against static spark                          | from making contact with the fill opening to guard against static spark         | in contact with the fill opening to allow proper venting               | None of the above  |         |
| 4 | 3327 | C | A semisubmersible, while floating level, displaces 20,000 long tons. LCB is 3.0 feet forward of amidships. Bulk, weighing 300 long tons, is placed in P-tanks located 40 feet aft of amidships. What is the new LCG?               | 3.64 feet forward of amidships  | 2.45 feet forward of amidships  | 2.36 feet forward of amidships   | 0.55 foot forward of amidships   |         |
| 4 | 3328 | A | A barge displaying a 2' X 3' white sign with the word "WARNING" followed by "DANGEROUS CARGO" in black letters _____.  | would require that a cargo information card be carried in the pilothouse of the towboat | may not be spotted next to the towboat while under tow                          | may not be in the same tow as a barge carrying gasoline                | must be located as a lead barge in a tow   |         |
| 4 | 3329 | C | A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.   | remain on course and hold speed   | remain on course but slack the speed  | change course and put the stern to the wind                            | change course to put the wind on either beam and increase speed                                      |         |
| 4 | 3330 | D | A carbon dioxide fire extinguisher is required to be recharged if the weight loss exceeds what percentage of the weight of the charge? (small passenger vessel regulations)  | One percent   | Five percent  | Seven percent  | Ten percent  |         |
| 4 | 3331 | D | The stability which remains after a compartment is flooded is called _____.  | intact stability  | initial stability   | immersion stability  | damage stability   |         |
| 4 | 3332 | C | When fueling has been completed _____.   | the fuel tank fill pipe should be left open to allow vapors to vent from the tank       | the engine should be started immediately to prevent vapor lock in the fuel line | all hatches should be opened and all compartments should be ventilated | open the fuel line and drain a small amount of gasoline into the bilge to clear the line of sediment |         |
| 4 | 3333 | B | The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 21'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts. | FWD 18'-06", AFT 21'-06"  | FWD 18'-08", AFT 21'-04"  | FWD 18'-10", AFT 21'-02"   | FWD 19'-00", AFT 21'-00"   | ST-0123 |
| 4 | 3334 | D | Inflatable liferafts are provided with _____.  | a portable radio  | an oil lantern  | canned milk  | a towing bridle  |         |

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|---|------|---|---|---|--|--|--|--|
| 4 | 3335 | D | Inflatable liferafts are provided with a _____.   | jackknife   | towing connection  | lifeline   | All of the above   |  |
| 4 | 3336 | A | Which statement is TRUE concerning gasoline vapors on board a vessel?   | They are heavier than air and will settle in the lowest part of the vessel. | They are lighter than air and will settle in the highest part of the vessel. | They should be vented into the engine to improve combustion. | They should be vented into the wheelhouse.                     |  |
| 4 | 3337 | B | Aboard a MODU, multiplying a load's weight by the distance of the load's center of gravity from the centerline results in the load's _____.   | LCG   | transverse moment  | righting moment  | inclining moment   |  |
| 4 | 3338 | D | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatches 5 & 7 while using a single belt loader, to arrive at a desired mean keel draft of 25'-02"? (Use the Guidance Manual for Loading M.V. GRAND HAVEN.) | 1410 tons   | 1450 tons  | 1490 tons  | 1520 tons  |  |
| 4 | 3339 | B | What is acceptable flame screening?   | A fitted single brass screen of 10 x 10 mesh                                | A fitted stainless steel screen of 30 x 30 mesh                              | A fitted single stainless steel screen of 15 x 15 mesh       | Two fitted brass screens of 10 x 15 mesh spaced 1/2 inch apart |  |
| 4 | 3341 | B | Inflatable liferafts are provided with a _____.   | Very pistol   | towing connection  | portable radio   | canned milk  |  |
| 4 | 3342 | A | How many type B-II hand portable fire extinguishers are required in the machinery space of an uninspected motor vessel with 1,400 BHP? (Uninspected Vessel Regulations)   | 2   | 3  | 4  | 5  |  |
| 4 | 3343 | D | The righting moment created by a MODU that displaces 15,000 tons with a righting arm (GZ) of 0.02 foot is _____.  | 3,000 foot-tons   | 750 foot-tons  | 600 foot-tons  | 300 foot-tons  |  |
| 4 | 3345 | A | When launching an inflatable liferaft, you should make sure that the operating cord is _____.   | fastened to some substantial part of the vessel                             | not fastened to anything   | secured to the hydrostatic release                           | fastened to the raft container                                 |  |
| 4 | 3346 | A | An inflatable liferaft is thrown into the water from a sinking vessel. Which action occurs automatically after the painter trips the CO2 bottles to inflate the raft?   | The sea anchor is deployed.   | The floor inflates.  | If upside down, the raft will right itself.                  | The painter detaches from the raft.                            |  |
| 4 | 3347 | D | The DEEP DRILLER is level at a draft of 60 feet in calm water. What is the value of the righting moment?  | 18,118 foot-tons  | 9,059 foot-tons  | 4,529 foot-tons  | 0 foot-tons  |  |

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| 4 | 3348 | C | Generally speaking, the fuel injected into a marine diesel engine combustion chamber is ignited by _____.  | spark plugs   | glow plugs  | heat of compression   | a magneto   |  |
| 4 | 3349 | B | Which device is required in the fuel supply line at the engine?  | Flow meter  | Shut-off valve  | Pressure gauge  | Filter  |  |
| 4 | 3350 | B | Which statement is TRUE concerning the number of portable fire extinguishers required at the operating station of a small passenger vessel? (small passenger vessel regulations) | None are required.  | One B-I extinguisher is required.                         | One B-II extinguisher is required.  | Two B-I extinguishers are required.                       |  |
| 4 | 3351 | D | In good weather, you should deploy the sea anchor from the liferaft to _____.  | keep the liferaft from capsizing                          | navigate against the current                              | keep personnel from getting seasick   | stay in the general location                              |  |
| 4 | 3352 | A | Which personal lifesaving device(s) is(are) approved for use on a towboat 150 feet in length? (Uninspected Vessel Regulations)   | Life preserver  | Buoyant vest or cushion                                   | Special purpose safety device   | All of the above  |  |
| 4 | 3353 | C | An inflatable liferaft can be launched by _____.   | the float free method only                                | kicking the hydrostatic release                           | throwing the entire container overboard, then pulling on the operating cord to inflate the raft | removing the securing straps                              |  |
| 4 | 3354 | C | Backfire flame arrestors are installed on _____.   | fuel tanks  | spark plugs   | carburetors   | distributors  |  |
| 4 | 3355 | C | The sea painter of an inflatable liferaft should be _____.   | free running on deck                                      | faked out next to the case                                | secured to a permanent object on deck via a weak link   | stowed near the raft                                      |  |
| 4 | 3356 | B | The tank barge on which you are preparing to load petroleum is required to have on board one B-II fire extinguisher. What does NOT meet this requirement?                        | 2-1/2 gallon foam   | 5 gallon water (stored pressure)                          | 10 pound dry chemical   | 15 pound CO2  |  |
| 4 | 3357 | B | What must be carried out in order to launch and inflate an inflatable liferaft?  | Pull on the hydrostatic release, pull on the sea painter. | Push on the hydrostatic release, pull on the sea painter. | Push on the hydrostatic release, push on the sea painter.                                       | Pull on the hydrostatic release, push on the sea painter. |  |
| 4 | 3358 | C | Spaces containing batteries require good ventilation because _____.  | ventilation avoids CO2 buildup                            | ventilation supplies extra oxygen for the battery         | ventilation avoids flammable gas accumulation   | less water would be used                                  |  |

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| 4 | 3359 | C | You are making tow. A loaded, open-hopper barge with independent tanks has placards, with alternating red and white quadrants, located at each side and end. You inspect the barge and find slight traces of water in the wing voids due to condensation. What should you do? | Refuse to accept the barge until all wing voids are dry.                   | Accept the barge and when weather conditions permit run with the wing voids open to ventilate the spaces. | Accept the barge and periodically check the wing voids.  | Return the barge to the fleet and depart without the barge.              |         |
| 4 | 3360 | C | The premixed foam agent in fixed and semiportable fire extinguishing systems should be replaced _____. (small passenger vessel regulations)   | every 12 months  | every 18 months   | every 36 months  | only when used   |         |
| 4 | 3361 | C | The moment created by a force of 12,000 tons and a moment arm of 0.25 foot is _____.  | 48,000 ft-tons   | 6,000 ft-tons   | 3,000 ft-tons  | 0 ft-tons  |         |
| 4 | 3363 | B | What must be carried out in order to manually launch an inflatable liferaft not designed for float-free operation?  | It will be easily launched by simply breaking the weak link.               | Depress the hydrostatic release button.   | It is easily launched by cutting the container securing straps.                                      | It is only necessary to attach the weak link to the vessel.              |         |
| 4 | 3364 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.  | 444 tons   | 644 tons  | 1044 tons  | 1263 tons  | ST-0124 |
| 4 | 3365 | B | What is the correct procedure to follow when launching an inflatable liferaft by hand from an OSV?  | Connect the float free link to the vessel.                                 | Pull the painter from the container and make it fast to the cleat provided.                               | Open the canopy relief valves.   | Remove the raft from the container to permit complete inflation.         |         |
| 4 | 3366 | C | An inflatable liferaft is floating in its container, attached to the ship by its painter, as the ship is sinking rapidly. Which action should be taken with respect to the liferaft container?  | Cut the painter line so that it will not pull the liferaft container down. | Swim away from the container so that you will not be in danger as it goes down.                           | Take no action as the pull on the painter will cause the liferaft to inflate and open the container. | Manually open the container and inflate the liferaft with the hand pump. |         |
| 4 | 3367 | A | After a liferaft is launched, the operating cord _____.   | serves as a sea painter  | detaches automatically  | is used to rig the boarding ladder   | is cut immediately as it is of no further use                            |         |
| 4 | 3368 | C | Your tow includes a barge carrying chlorine. Which special requirements must be observed?   | The wing voids shall not be opened when underway.                          | You must post a deckhand to keep a special watch on this barge.   | A cargo information card for chlorine must be in the pilothouse.                                     | All of the above   |         |



|   |      |   |   |   |   |  |   |  |
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| 4 | 3369 | B | Several vessels are at an anchorage. You wish to communicate with the vessel bearing 046°T from you but do not know the vessels call letters. Which flag hoist should NOT be used to establish communications?  | CS  | RQ A046   | VF   | YQ3 A046  |  |
| 4 | 3370 | D | The carbon dioxide cylinders of all fixed fire extinguishing systems shall be retested and remarked whenever a cylinder remains in place on a vessel for _____. (small passenger vessel regulations)  | 5 years from the latest test date stamped on the cylinder         | 7 years from the latest test date stamped on the cylinder | 10 years from the latest test date stamped on the cylinder | 12 years from the latest test date stamped on the cylinder  |  |
| 4 | 3371 | C | The DEEP DRILLER at a draft of 60.0 feet discharges 68.94 long tons of ballast. What is the new draft?  | 66.0 feet   | 60.5 feet   | 59.5 feet  | 55.0 feet   |  |
| 4 | 3372 | D | Which statement is FALSE concerning precautions during small craft fueling operations?  | All engines, motors, fans, etc. should be shut down when fueling. | All windows, doors, hatches, etc. should be closed.       | A fire extinguisher should be kept nearby.                 | Fuel tanks should be topped off with no room for expansion. |  |
| 4 | 3373 | C | The DEEP DRILLER at survival draft loads 2,068.1 long tons of ballast. What is the new draft?   | 30.0 feet   | 45.0 feet   | 60.0 feet  | 75.0 feet   |  |
| 4 | 3374 | B | What is NOT listed on the metallic name plate required to be attached to hand portable fire extinguishers? (Uninspected Vessel Regulations)   | The rated capacity in gallons, quarts, or pounds                  | The hydrostatic test date of the cylinder                 | The name of the item                                       | An identifying mark of the actual manufacturer              |  |
| 4 | 3375 | B | The DEEP DRILLER at a draft of 58.0 feet discharges 1,792.44 long tons of ballast. What is the new draft?   | 40 feet   | 45 feet   | 50 feet  | 55 feet   |  |
| 4 | 3376 | D | Outlets in gasoline fuel lines are _____,   | permitted for drawing fuel samples                                | permitted for draining fuel from lines                    | permitted for bleeding air from lines                      | prohibited  |  |
| 4 | 3377 | C | The DEEP DRILLER at a draft of 58.0 feet loads 68.94 long tons of ballast. What is the new draft?   | 52.0 feet   | 57.5 feet   | 58.5 feet  | 64.0 feet   |  |
| 4 | 3378 | A | Assuming that the recommended hatch loading sequence is followed, how many long tons of iron ore may be loaded through hatch No. 1 while using a single belt loader to arrive at a desired mean keel draft of 29'-11"? (use the Guidance Manual for Loading M.V. GRAND HAVEN) | 2230 tons   | 2270 tons   | 2310 tons  | 2350 tons   |  |
| 4 | 3379 | C | Where should a tank barge's Certificate of Inspection be kept?  | In the owner's office   | In the operator's office                                  | On the barge   | On the towboat  |  |

|   |      |   |   |  |  |  |  |         |
|---|------|---|---|--|--|--|--|---------|
| 4 | 3380 | D | At each initial and subsequent inspection for certification, all carbon dioxide fire extinguishers aboard a vessel are _____. (small passenger vessel regulations)  | checked for pressure loss  | discharged and recharged   | sent ashore to an approved service facility  | weighed  |         |
| 4 | 3381 | A | The DEEP DRILLER, at a mean draft of 60 feet, has a two-foot trim by the head and a three foot list to starboard. What is the draft at the port aft draft mark?   | 57.5 feet  | 59.5 feet  | 60.5 feet  | 62.5 feet  |         |
| 4 | 3382 | D | A 6,000 BHP, 199 GT tug operating on the Great Lakes is required to carry how many B-II extinguishers? (Uninspected Vessel Regulations)   | 2  | 3  | 6  | 9  |         |
| 4 | 3383 | A | The DEEP DRILLER, at a mean draft of 45 feet, has a three-foot trim by the stern and a two-foot list to port. What is the draft at the starboard forward draft mark?  | 42.5 feet  | 44.5 feet  | 45.5 feet  | 47.5 feet  |         |
| 4 | 3384 | A | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4236 tons of cargo on board with a KG of 27.2 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 26.9 feet   | KG 27.3 feet   | KG 27.8 feet   | KG 28.1 feet   | ST-0125 |
| 4 | 3385 | C | A jack-up, 180 feet in length, has the center of flotation at 110 feet aft of frame zero. The draft at the bow is 11.0 feet and the draft at the stern is 13.0 feet. What is the true mean draft?   | 11.78 feet   | 12.00 feet   | 12.22 feet   | 12.78 feet   |         |
| 4 | 3386 | D | While proceeding towards a distress site you hear the message PRU-DONCE over the radiotelephone. Which action should you take?  | Advise the sender of your course, speed, position, and ETA at the distress site. | Resume base course and speed because the distress is terminated. | Shift your radio guard to the working frequency that will be indicated in the message. | Use that frequency only for restricted working communications. |         |
| 4 | 3387 | A | A semisubmersible records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; Starboard Aft 63'-09". What is the mean draft?   | 64.25 feet   | 64.40 feet   | 64.75 feet   | 64.90 feet   |         |
| 4 | 3388 | B | A carburetor is required to have a safety device called a(n) _____.   | pressure release   | backfire flame arrestor  | automatic shut off   | flow valve   |         |

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|---|------|---|--|--|------------------------------------|---|---|---------|
| 4 | 3389 | B | The draft of the SS AMERICAN MARINER cannot exceed 23'-06" in order to cross a bar. The present drafts are: FWD 22'-03", AFT 24'-00". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition. | 77 tons                                  | 96 tons                            | 120 tons  | 124 tons  |         |
| 4 | 3390 | B | Non-required lifesaving equipment carried as additional equipment aboard small passenger vessels _____.  | must be removed when carrying passengers | must be approved by the Commandant | may be substituted for not more than 5% of the required lifejackets | may be carried regardless of approval or condition, if in excess of required lifesaving equipment |         |
| 4 | 3391 | B | A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-9"; Port Aft 68'-9"; Starboard Forward 59'-9"; and Starboard Aft 63'-9". What is the true mean draft?  | 64.25 feet                               | 64.45 feet                         | 64.75 feet  | 64.90 feet  |         |
| 4 | 3392 | A | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.   | 595 tons                                 | 870 tons                           | 1200 tons   | 1350 tons   | ST-0126 |
| 4 | 3393 | A | A semisubmersible with a TPI of 11.25 long tons per inch discharges 270 long tons from amidships. What is the new mean draft if the original drafts were: Port Forward 69.5 feet; Port Aft 68.5 feet; Starboard Forward 71.5 feet; Starboard Aft 70.5 feet?                                    | 68'-0"                                   | 69'-10"                            | 70'-2"  | 72'-0"  |         |
| 4 | 3394 | B | The carburetor is placed on the engine to _____.   | distribute the gasoline                  | mix the fuel and air               | properly lubricate the engine                                       | assist in priming the cylinders   |         |
| 4 | 3395 | C | A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the mean draft?   | 8.0 feet                                 | 9.0 feet                           | 9.5 feet  | 12.0 feet   |         |

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|---|------|---|--|---|---|--|---|--|
| 4 | 3396 | D | On a vessel making a voyage more than 48 hours long, regulations require that _____.   | a lifeboat drill be held within 12 hours prior to departure | fire pumps be tested by starting within 12 hours prior to departure | the emergency generator and lighting system be tested by starting and operating within 12 hours prior to departure | the entire steering gear be tested within 12 hours prior to departure |  |
| 4 | 3397 | C | A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the true mean draft (draft at the center of flotation)? | 8.0 feet  | 9.0 feet  | 10.0 feet  | 11.0 feet   |  |
| 4 | 3398 | A | Before starting any diesel or gasoline engine, which of the following must be checked?   | Oil level   | Flow of cooling water   | Exhaust discharge  | All of the above  |  |
| 4 | 3399 | D | Which sizes of fire extinguishers are considered to be semi-portable? (Uninspected vessel regulations)   | I, II, III, IV, and V                                       | I, II, and III only   | II, III, and IV only   | III, IV, and V only   |  |
| 4 | 3400 | C | How should the number "9" be pronounced when spoken on the radiotelephone?   | NEW-MER-AL-NINER  | NUM-BER-NINE  | NO-VAY-NINER   | OK-TOH-NINE   |  |
| 4 | 3401 | A | While in port, what signal flag would inform the vessel's crew to report on board because the vessel was about to proceed to sea?  | "P"   | "H"   | "U"  | "A"   |  |
| 4 | 3402 | D | A vessel is signaling to you by flag hoist, and the answer pennant is hoisted close-up. You should _____.  | hoist flag "C"  | wait for further signals after a short delay                        | hoist flag "R"   | expect no further flag hoists   |  |
| 4 | 3403 | D | The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft at the forward draft marks is observed to be 8.0 feet. The draft at the center of flotation is _____.            | 7.00 feet   | 8.58 feet   | 9.00 feet  | 9.42 feet   |  |
| 4 | 3404 | B | Convection spreads a fire by _____.  | transmitting the heat of a fire through the ship's metal    | heated gases flowing through ventilation systems                    | burning liquids flowing into another space   | the transfer of heat across an unobstructed space                     |  |
| 4 | 3405 | D | The COASTAL DRILLER has a trim of 2.13 feet by the stern. If the draft at the forward draft marks is 8.0 feet, the draft at the after draft marks is _____.                          | 7.00 feet   | 9.00 feet   | 9.42 feet  | 10.13 feet  |  |
| 4 | 3406 | A | After having thrown the liferaft and stowage container into the water, the liferaft is inflated by _____.  | pulling on the painter line                                 | forcing open the container which operates the CO2                   | hitting the hydrostatic release  | using the hand pump provided  |  |

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| 4 | 3407 | C | The most important thing to remember when launching an inflatable liferaft by hand is to _____.  | open the CO2 inflation valve   | open the raft container  | ensure that the operating cord is secured to the vessel                        | inflate the raft on the vessel, then lower it over the side  |         |
| 4 | 3408 | B | As shown, number 1 operates the _____.   | McCluny hook   | Fleming gear   | releasing gear   | sea painter  | D011SA  |
| 4 | 3409 | D | To launch a liferaft by hand, you should _____.  | cut the casing bands, throw the raft over the side and it will inflate by itself | detach the operating cord, throw the liferaft over the side and it will then inflate | cut the casing bands, throw the raft over the side and pull the operating cord | throw the liferaft over the side and pull the operating cord |         |
| 4 | 3410 | B | How should the letter "I" be pronounced when spoken on the radiotelephone?   | IN DEE GO  | IN DEE AH  | I EE   | I VAN HO   |         |
| 4 | 3411 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 7.9 feet   | 7.3 feet   | 6.4 feet   | 4.3 feet   | ST-0127 |
| 4 | 3412 | B | Your vessel's existing draft is FWD 24'-08", AFT 25'-04". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 180 long tons are loaded in No. 23 hatch.         | FWD 24'-04 2/3", AFT 25'-10 3/4"   | FWD 24'-06 1/2", AFT 25'-08 2/3"   | FWD 24'-08 1/4", AFT 25'-00 2/3"   | FWD 24'-10 1/4", AFT 25'-00 1/4"                             |         |
| 4 | 3413 | C | With no environmental forces on the DEEP DRILLER, the average of the forward drafts is 59.0 feet, and the average of the aft drafts is 61.0 feet. KGL is 51.13 feet. What is the value of LCG? | -0.12 foot   | 0.12 foot  | 2.11 feet  | 2.35 feet  |         |
| 4 | 3414 | B | A rigid lifesaving device designed to support survivors in the water is a _____.   | rigid liferaft   | life float   | inflatable liferaft  | survival capsule   |         |
| 4 | 3415 | A | A vessel has a strong wind on the port beam. This has the same affect on stability as _____.   | weight that is off-center to starboard   | increasing the draft   | reducing the freeboard   | increasing the trim  |         |
| 4 | 3416 | C | The instructions for the launching of lifeboats and liferafts must be approved by the _____.   | lease operator   | Minerals Management Service  | Coast Guard  | person-in-charge of the unit                                 |         |
| 4 | 3417 | D | Which statement is TRUE concerning an inflatable liferaft?   | The floor may be inflated for insulation from cold water.                        | Crew members may jump into the raft without damaging it.                             | The raft may be boarded before it is fully inflated.                           | All of the above   |         |
| 4 | 3418 | C | Your 600 GT vessel must carry a line-throwing appliance if it is certificated for _____.   | river service  | Great Lakes service  | coastwise service  | None of the above  |         |

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| 4 | 3419 | C | Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 35 lbs.   | 785 tons each                                    | 820 tons each                                    | 880 tons each                                | 900 tons each   |         |
| 4 | 3420 | B | How should the number "1" be pronounced when spoken on the radiotelephone?   | OO-NO  | OO-NAH-WUN                                       | NUM-EV-WUN                                   | NEW-MAL-WON   |         |
| 4 | 3421 | D | In order to retrieve an inflatable liferaft and place it on deck, you should heave on the _____.   | lifelines  | righting strap                                   | sea anchor                                   | towing bridle   |         |
| 4 | 3423 | C | What is the trim of a jack-up with forward draft of 11 feet and aft draft of 13.75 feet?   | 1.38 feet by the stern                           | 1.45 feet by the stern                           | 2.75 feet by the stern                       | 2.90 feet by the stern                                |         |
| 4 | 3424 | C | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.               | 1920 tons  | 1280 tons  | 895 tons                                     | 720 tons  | ST-0128 |
| 4 | 3425 | B | What is the trim of a jack-up with a forward draft of 12 feet and an after draft of 13 feet?   | 0.5 foot by the stern                            | 1.0 foot by the stern                            | 2.0 feet by the stern                        | 0.5 feet by the head                                  |         |
| 4 | 3426 | C | In illustration D011SA, number 1 operates the _____.   | releasing gear                                   | sea painter                                      | Fleming gear                                 | McCluny hook  | D011SA  |
| 4 | 3427 | B | A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; and Starboard Aft 63'-09". What is the trim?   | 8 feet by the stern                              | 4 feet by the stern                              | 2 feet by the stern                          | 4 feet by the head                                    |         |
| 4 | 3428 | D | Which river passenger vessel must have a copy of the vessel's plans permanently displayed?   | A 200 GT vessel carrying more than 50 passengers | A 325 GT vessel on a voyage in excess of 8 hours | A 550 GT vessel with sleeping accommodations | A 1100 GT vessel making daylight excursion trips only |         |
| 4 | 3429 | C | Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 3 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 37.6 lbs. | 930 tons each                                    | 955 tons each                                    | 975 tons each                                | 990 tons each   |         |
| 4 | 3430 | C | How should the letter "Q" be pronounced when spoken on the radiotelephone?   | QWE BEC  | QUE BACH   | KEH BECK                                     | QU UE   |         |
| 4 | 3431 | B | The DEEP DRILLER, at a draft of 60 feet, has a KGL of 55.4 feet and an LCG of 2.37 feet. What is the trim in feet?   | 2.0 feet by the head                             | 4.0 feet by the head                             | 4.0 feet by the stern                        | 8.0 feet by the stern                                 |         |

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| 4 | 3432 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.  | 6.1 feet  | 5.8 feet  | 5.4 feet   | 4.9 feet                                      | ST-0129 |
| 4 | 3433 | C | An inflatable liferaft should be lifted back aboard ship by using _____.  | the single hook at the top of the raft          | two line passed under the raft                          | the towing bridle  | All of the above                              |         |
| 4 | 3434 | D | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 4260 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 24.6 feet                                    | KG 25.0 feet  | KG 25.4 feet   | KG 25.9 feet                                  | ST-0130 |
| 4 | 3435 | C | Small wooden hull passenger vessels, whose routes are limited to coastwise warm water routes on the high seas, must carry approved life floats or buoyant apparatus _____.  | for all persons on board                        | for not less than 67% of all persons permitted on board | for not less than 100% of all persons permitted on board | in place of ring life buoys                   |         |
| 4 | 3436 | D | After launching, an inflatable raft should be kept dry inside by _____.   | opening the automatic drain plugs               | draining the water pockets                              | using the electric bilge pump                            | using the bailers and cellulose sponge        |         |
| 4 | 3437 | C | A jack-up 180 feet in length with the LCF at 120 feet AFO has a draft of 8 feet at the bow and 11 feet at the stern. What is the trim by the stern?   | 2.0 feet  | 2.4 feet  | 3.0 feet   | 6.0 feet                                      |         |
| 4 | 3438 | A | Generally, when lifting an inflatable liferaft back aboard ship, you would use the _____.   | towing bridle                                   | main weather cover                                      | external lifelines                                       | righting strap                                |         |
| 4 | 3439 | D | An inflatable liferaft should be manually released from its cradle by _____.  | cutting the straps that enclose the container   | removing the rubber sealing strip from the container    | loosening the turnbuckle on the securing strap           | pushing the button on the hydrostatic release |         |
| 4 | 3440 | A | How should the number "7" be pronounced when spoken on the radiotelephone?  | SAY-TAY-SEVEN                                   | SEE-ETA-SEVEN   | NUM-BER-SEVEN  | NEW-MER-AL-SEVEN                              |         |
| 4 | 3441 | C | A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 74'-09"; Port Aft 78'-09"; Starboard Forward 69'-09"; and Starboard Aft 73'-09". What is the trim?                  | -1.0 foot                                       | -2.0 feet   | -4.0 feet  | -8.0 feet                                     |         |
| 4 | 3442 | C | When hanging off drill pipe in emergency situations aboard a MODU, the preferred location of the drill bit is _____.  | on bottom with the full drill string in tension | one stand (approximately 93 feet) off bottom            | no deeper than the shoe of the last casing set           | as close to the surface as possible           |         |
| 4 | 3443 | D | The DEEP DRILLER, at a draft of 60 feet, has a KGT of 57.11 feet and TCG of 0.5 foot to port. What is the list angle?   | 2° port   | 3° port   | 4° port  | 5° port                                       |         |

|   |      |   |   |                                     |                                      |                                      |                             |         |
|---|------|---|---|-------------------------------------|--------------------------------------|--------------------------------------|-----------------------------|---------|
| 4 | 3444 | A | The nautical term "lee shore" refers to the _____.  | shore on the lee side of the vessel | shore that is in the lee             | western shore of the Lesser Antilles | shore in a harbor of refuge |         |
| 4 | 3445 | B | The DEEP DRILLER, at a draft of 55 feet, has a KGT of 53.05 feet and TCG of 0.5 foot to starboard. What is the list angle?  | 2.0°Starboard                       | 2.9°Starboard                        | 3.2°Starboard                        | 3.5° starboard              |         |
| 4 | 3446 | A | To release the davit cable of a davit launched liferaft, you must _____.  | pull the release lanyard            | pull the hydraulic release           | push the release button              | pull on the ratchet handle  |         |
| 4 | 3447 | B | A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 64'-09"; Port Aft 68'-09"; Starboard Forward 59'-09"; and Starboard Aft 63'-09". What is the list?                  | 10 feet to port                     | 5 feet to port                       | 2.5 feet to port                     | 5 feet to starboard         |         |
| 4 | 3448 | B | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3485 tons of cargo on board with a KG of 24.4 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed. | KG 25.1 feet                        | KG 25.6 feet                         | KG 26.0 feet                         | KG 26.5 feet                | ST-0131 |
| 4 | 3449 | B | How many ring life buoys should a 700 foot cargo vessel, not subject to SOLAS, navigating the Great Lakes carry?  | 12                                  | 14                                   | 18                                   | 24                          |         |
| 4 | 3450 | A | According to the regulations for lifeboat falls, which action must be taken at 30-month intervals?  | End-for-ended                       | Renewed                              | Inspected                            | Weight tested               |         |
| 4 | 3451 | A | As shown, number 1 operates the _____.  | Fleming gear                        | McCluney hook                        | sea painter                          | releasing gear              | D011SA  |
| 4 | 3452 | A | Your vessel's existing draft is FWD 29'-05", AFT 30'-07". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 540 long tons are loaded in No. 18 hatch.  | FWD 29'-05", AFT 31'-03"            | FWD 29'-09", AFT 30'-11"             | FWD 30'-01", AFT 31'-03"             | FWD 30'-04", AFT 29'-06"    |         |
| 4 | 3453 | D | Your rescue craft is broken down and rolling in heavy seas. You can reduce the possibility of capsizing by _____.   | shifting the rudder constantly      | moving all personnel forward and low | moving all personnel aft             | rigging a sea anchor        |         |
| 4 | 3454 | A | A passenger vessel of 600 GT is required to have how many fire axes?  | 6                                   | 4                                    | 2                                    | 1                           |         |
| 4 | 3455 | C | A semisubmersible, 200 feet in length between draft marks with the LCF 10 feet aft of amidships, records the following drafts: Port Forward 74'-09"; Port Aft 78'-09"; Starboard Forward 69'-09"; and Starboard Aft 73'-09". What is the list?                  | -1.0 foot                           | -2.5 feet                            | -5.0 feet                            | -10.0 feet                  |         |



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| 4 | 3456 | B | When a sea anchor for a survival craft is properly rigged, it will _____.   | completely stop the survival craft from drifting  | help to prevent broaching  | prevent the survival craft from pitching   | prevent the survival craft from rolling  |         |
| 4 | 3457 | A | Using a sea anchor will _____.  | reduce your drift rate  | keep the liferaft from turning over  | aid in recovering the liferaft   | increase your visibility   |         |
| 4 | 3458 | B | When fighting a fire in a space containing an IMO class 1 hazardous cargo, the most effective fire fighting procedure is to _____.  | shut down the ventilation and exclude all air to smother the fire   | use water from fire hoses or a sprinkler system  | activate the fixed CO2 firefighting system   | use high-expansion foam  |         |
| 4 | 3459 | B | Using the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No.1 (P&S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 39.5 lbs.   | 155 tons each   | 170 tons each  | 190 tons each  | 200 tons each  |         |
| 4 | 3460 | C | How should the letter "T" be pronounced when spoken on the radiotelephone?  | TEE   | TA HO  | TANG GO  | TU TU  |         |
| 4 | 3461 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing port list and bow down trim occurs. A leak in C1P is found. By deballasting from ballast tanks 2P and 3P, the inclination slowly decreases. The increase in the transverse free surface correction is _____. | 1.25 feet   | 0.82 foot  | 0.34 foot  | 0.18 foot  |         |
| 4 | 3463 | D | Which of the following statements relating to AMVER (Automated Mutual-assistance Vessel Rescue) is TRUE?  | An AMVER participant is under greater obligation to render assistance to a vessel in distress than a non-participant. | An AMVER participant is not relieved of the obligation to give 24 hour advance notice to the U.S. Coast Guard before entering a U.S. port from offshore. | The AMVER system does not reduce the time lost for vessels responding to calls for assistance. | There is no cost to the ship or owner for messages sent within the AMVER system. |         |
| 4 | 3464 | A | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 3175 tons of cargo on board with a KG of 25.8 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.   | KG 26.8 feet  | KG 27.3 feet   | KG 28.2 feet   | KG 28.5 feet   | ST-0132 |

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| 4 | 3465 | C | The free surface effects of a partially full liquid tank decrease with increased _____.  | density of the liquid   | placement of the tank above the keel                      | displacement volume of the vessel               | size of the surface area in the tank      |  |
| 4 | 3466 | B | A sea anchor is _____.   | a heavy metal anchor with an extra long line used to anchor in deep water | a cone shaped bag used to slow down the wind drift effect | a pad eye to which the sea painter is made fast | made of wood if it is of an approved type |  |
| 4 | 3467 | D | An emergency sea anchor may be constructed by using _____.   | a boat bucket   | an air tank filled with water                             | an oar and canvas weighted down                 | All of the above                          |  |
| 4 | 3468 | A | Handholds or straps on the underside of an inflatable liferaft are provided _____.   | to right the raft if it capsizes  | to carry the raft around on deck                          | for crewmen to hang on to                       | to hang the raft for drying               |  |
| 4 | 3469 | B | The knife on an inflatable liferaft will always be located _____.  | in one of the equipment bags  | in a special pocket on the exterior of the canopy         | on a cord hanging from the canopy               | in a pocket on the first aid kit          |  |
| 4 | 3470 | C | According to the regulations for lifeboat falls, which action must be taken with the falls no later than 5-year intervals?   | Proof tested  | End-for-ended   | Renewed   | Weight tested                             |  |
| 4 | 3471 | D | Every fishing vessel required to have a general alarm system must test it _____.   | once every day that the vessel is operated                                | once every week that the vessel is operated               | prior to operation of the vessel                | Both B and C                              |  |
| 4 | 3472 | B | If you find an inflatable liferaft container with the steel bands still in place around its case, you should _____.  | tell the Master   | leave the bands in place                                  | tell the Mate                                   | remove the bands yourself                 |  |
| 4 | 3473 | C | In each inflatable rescue boat, what piece of equipment is provided to make quick, emergency, temporary repairs to a large hole in a raft?   | No equipment is provided.   | Glue and rubber patches                                   | Several various-sized sealing clamps            | Self-adhesive rubberized canvas patches   |  |
| 4 | 3475 | B | What is the increase in the longitudinal free surface correction for the DEEP DRILLER at a draft of 60 feet if 103.48 long-tons of ballast are transferred from a full ballast tank 1P to an empty ballast tank 10S? | 0.50 foot   | 0.47 foot   | 0.27 foot                                       | 0.13 foot                                 |  |
| 4 | 3477 | B | What is the increase in the transverse free surface correction for the DEEP DRILLER at a draft of 60 feet if 103.48 long-tons of ballast are transferred from a full ballast tank 1P to an empty ballast tank 10S?   | 0.47 foot   | 0.32 foot   | 0.27 foot                                       | 0.13 foot                                 |  |
| 4 | 3478 | A | Puncture leaks in the lower tubes or bottom of an inflatable liferaft should FIRST be stopped by using _____.  | sealing clamps  | repair tape   | a tube patch                                    | sail twine and vulcanizing kit            |  |

|   |      |   |  |  |   |  |  |         |
|---|------|---|--|--|---|--|--|---------|
| 4 | 3479 | C | A feature of an inflatable raft which helps keep people stationary in rough weather is _____.  | lashings on the floor of the raft for the passenger's feet                                       | straps from the overhead  | lifelines on the inside of the raft                  | ridges in the floor of the raft  |         |
| 4 | 3480 | C | How should the number "6" be pronounced when spoken on the radiotelephone?   | SOX-SIX  | NUM-BER-SIX   | SOK-SEE-SIX  | NEW-MER-AL-SIX   |         |
| 4 | 3481 | A | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 Drill Water Tanks are discharged, what is the new longitudinal free surface correction?   | 1.63 feet  | 2.14 feet   | 2.24 feet  | 2.38 feet  |         |
| 4 | 3482 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 5.1 feet   | 4.9 feet  | 2.9 feet   | 2.5 feet   | ST-0133 |
| 4 | 3483 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 Drill Water Tanks are discharged, what is the new transverse free surface correction?   | 1.77 feet  | 1.67 feet   | 1.56 feet  | 1.45 feet  |         |
| 4 | 3484 | D | Your 80-ton schooner is hove to on the starboard tack under storm trysail and fore-staysail in 45 knots of wind. Your heading is averaging about 000° true and the wind is from the northeast. There is a dangerous shoal bearing 270° true, range 5 miles. Which action would be appropriate? | You need only stay alert for changes, as your present drift will carry you away from the danger. | You should strike all sails and get underway under bare poles, making as much way as possible to the north. | You should set a reefed foresail and strike the jib. | You should tack or jibe to the port tack and make all possible headway to the south. |         |
| 4 | 3485 | B | In the event the motion of the DEEP DRILLER is such that critical motion limits are exceeded, you should _____.  | place the unit at 65 foot draft  | place the unit at 45 foot draft   | shift loads to increase KG                           | place the unit in standby  |         |
| 4 | 3487 | A | Generally, what is used to inflate liferafts?  | non-toxic inert gas  | Oxygen  | Hydrogen   | Carbon monoxide  |         |
| 4 | 3488 | B | Who should inspect and test an inflatable liferaft?  | The person in charge   | An approved servicing facility  | Shipyard personnel                                   | A certificated lifeboatman   |         |
| 4 | 3489 | C | If the hydrostatic release mechanism for an inflatable liferaft is not periodically serviced and becomes inoperative, it will NOT _____.   | set the water lights on immersion  | release the dye-marker from the liferaft  | free the liferaft from a sinking vessel              | break the seal on the carbon dioxide cylinder  |         |
| 4 | 3490 | D | According to the SOLAS regulations, lifeboat falls must be renewed at intervals of how many years?   | 2.5  | 3   | 4  | 5  |         |

|   |      |   |   |   |                                   |                                   |                              |         |
|---|------|---|---|---|-----------------------------------|-----------------------------------|------------------------------|---------|
| 4 | 3491 | D | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard forward column below the waterline. Pumping from tank 2S and 3S is not sufficient to prevent increasing starboard list and bow down trim. You should consider counterflooding in tank _____. | 2P  | 9P                                | C2BP                              | 10P                          |         |
| 4 | 3492 | C | Your vessel's existing draft is FWD 17'-03", AFT 18'-09". Using the Guidance Manual for Loading M.V. Grand Haven, determine the new draft if 450 long tons are loaded in No. 16 hatch.  | FWD 16'-11", AFT 19'-04 2/3"  | FWD 17'-01", AFT 18'-11 1/4"      | FWD 17'-04", AFT 19'-03 3/4"      | FWD 17'-07", AFT 18'-11 1/4" |         |
| 4 | 3493 | B | The longitudinal distance between draft marks for the DEEP DRILLER is _____.  | 122'-09"  | 164'-00"                          | 260'-00"                          | 260'-05"                     |         |
| 4 | 3494 | D | A passenger vessel in river service which operates in fresh water at least 6 out of every 12 months since the last dry dock examination must be dry-docked at intervals not to exceed _____.  | 12 months   | 24 months                         | 48 months                         | 60 months                    |         |
| 4 | 3495 | D | The SS AMERICAN MARINER arrived in port with drafts of: FWD 17'-10", AFT 19'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.  | FWD 16'-10", AFT 21'-02"  | FWD 17'-00", AFT 21'-00"          | FWD 17'-02", AFT 20'-10"          | FWD 17'-04", AFT 20'-08"     | ST-0134 |
| 4 | 3496 | C | In general, how often are sanitary inspections of passenger and crew quarters made aboard passenger vessels in river service?   | Once each day   | Once each week                    | Once each month                   | Once each trip               |         |
| 4 | 3497 | A | What is the purpose of the hydrostatic release on an inflatable liferaft?   | To release the raft from the cradle automatically as the ship sinks | To inflate the raft automatically | To test the rafts hydrostatically | None of the above            |         |
| 4 | 3498 | B | Your passenger vessel is 130 feet (40 m) long and is alternatively equipped for operating in river service. The number of ring life buoys required for the vessel is _____.   | 2   | 4                                 | 6                                 | 8                            |         |
| 4 | 3500 | D | How should the letter "Z" be pronounced when spoken on the radiotelephone?  | ZEE BR AH   | ZEE ZE                            | ZE HE                             | ZOO LOO                      |         |
| 4 | 3501 | B | The DEEP DRILLER as currently configured is limited to a maximum water depth of _____.  | 400 feet  | 600 feet                          | 800 feet                          | 1,000 feet                   |         |

|   |      |   |  |                                 |                                  |                                       |                                  |         |
|---|------|---|--|---------------------------------|----------------------------------|---------------------------------------|----------------------------------|---------|
| 4 | 3502 | B | How many self-contained breathing apparatus are required aboard a 500 ton passenger vessel in river service with 75 passenger staterooms?  | 0                               | 1                                | 2                                     | 3                                |         |
| 4 | 3503 | A | The transverse distance between draft marks for the DEEP DRILLER is _____.   | 122'-09"                        | 164'-00"                         | 217'-01"                              | 260'-05"                         |         |
| 4 | 3504 | C | The SS AMERICAN MARINER is ready to load the cargo listed. There is already 6280 tons of cargo on board with a KG of 25.5 feet. Use the white pages of the Stability Data Reference Book to determine the final KG of all the cargo after loading is completed.  | KG 25.3 feet                    | KG 25.7 feet                     | KG 26.0 feet                          | KG 27.1 feet                     | ST-0135 |
| 4 | 3505 | A | The lightweight vertical moments for the DEEP DRILLER are _____.   | 680,914 ft-long tons            | 9,733 ft-long tons               | -5,937 ft-long tons                   | -6,716 ft-long tons              |         |
| 4 | 3506 | A | You are on a Mariner class cargo vessel. Your drafts are: FWD 17'-04", AFT 19'-04". You wish to increase the calculated GM of 3.0' to 4.2'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)   | Tanks: DB3, DB4                 | Tanks: DB6, DB3                  | Tanks: DB2, DB6                       | Tanks: DT7, DT8, DB3             |         |
| 4 | 3507 | D | The lightweight longitudinal moments for the DEEP DRILLER are _____.   | 680,914 ft-long tons            | 9,733 ft-long tons               | -5,937 ft-long tons                   | -6,716 ft-long tons              |         |
| 4 | 3508 | D | Except in rare cases, it is impossible to extinguish a shipboard fire by _____.  | interrupting the chain reaction | removing the heat                | removing the oxygen                   | removing the fuel                |         |
| 4 | 3509 | B | The maximum draft of the SS AMERICAN MARINER cannot exceed 30'-01" in order to cross a bar. The present drafts are: FWD 29'-04", AFT 30'-06". Use the white pages of the Stability Data Reference Book to determine the minimum amount of sea water to ballast the forepeak to achieve this condition. | 97 tons                         | 100 tons                         | 103 tons                              | 106 tons                         |         |
| 4 | 3510 | C | When required, the steering gear, whistle, and the means of communication between the pilothouse and the engine room on a passenger vessel shall be tested by an officer of the vessel within a period of not more than how many hours prior to departure?   | 4                               | 8                                | 12                                    | 24                               |         |
| 4 | 3511 | C | The lightweight transverse moments for the DEEP DRILLER are _____.   | 680,914 ft-long tons            | 9,733 ft-long tons               | -5,937 ft-long tons                   | 000 ft-long tons                 |         |
| 4 | 3512 | A | You have sent a visual signal to an aircraft. The aircraft then flies over your position on a straight course and level altitude. What should you do?  | Repeat your signal.             | Send any more signals necessary. | Change course to follow the airplane. | Prepare for a helicopter pickup. |         |

|   |      |   |  |                                       |   |                                   |                                     |         |
|---|------|---|--|---------------------------------------|---|-----------------------------------|-------------------------------------|---------|
| 4 | 3513 | B | The lightweight transverse free surface moments for the DEEP DRILLER are _____.  | 680,914 ft-long tons                  | 000 ft-long tons                        | -5,937 ft-long tons               | -6,716 ft-long tons                 |         |
| 4 | 3514 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.   | 2.8 feet                              | 4.6 feet                                | 6.8 feet                          | 7.1 feet                            | ST-0136 |
| 4 | 3515 | B | The lightweight longitudinal free surface moments for the DEEP DRILLER are _____.  | 680,914 ft-long tons                  | 000 ft-long tons                        | -5,937 ft-long tons               | -6,716 ft-long tons                 |         |
| 4 | 3516 | B | Drinking salt water will _____.  | will protect against heat cramps      | dehydrate you                           | be safe if mixed with fresh water | prevent seasickness                 |         |
| 4 | 3517 | B | What is the lightweight of the DEEP DRILLER?   | 680,914 long tons                     | 9,733 long tons                         | 5,937 long tons                   | 6,716 long tons                     |         |
| 4 | 3518 | D | The groups "AA" and "AB" are used in conjunction with what other group in signaling by flashing light?   | WA                                    | RQ                                      | CS                                | RPT                                 |         |
| 4 | 3519 | B | A message by flashing light consists of the call, the identity, the ending, and the _____.   | reply                                 | text                                    | time                              | answer                              |         |
| 4 | 3520 | D | How should the number "5" be pronounced when spoken on the radiotelephone?   | FIVE-ER                               | NEW-MARL-FIVE                           | NUM-ERL-FIVE                      | PAN-TAH-FIVE                        |         |
| 4 | 3521 | D | Among the equipment included in the DEEP DRILLER lightweight are the derrick, traveling block in the lowest position, anchors, mooring chain, all machinery with liquids to normal operating level, and _____.                         | normal food supplies for 79 persons   | eight anchor buoys                      | lower-hull fuel                   | loading hoses                       |         |
| 4 | 3522 | C | You are on a Mariner class cargo vessel. Your drafts are: FWD 21'-04", AFT 23'-04". You wish to increase the calculated GM of 4.8' to 5.8'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.) | Tanks: DB2, DB6                       | Tanks: DB6, DT7                         | Tanks: DB4, DB7                   | Tanks: DB2, DB5                     |         |
| 4 | 3523 | A | Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, traveling block in the lowest position, anchors, mooring chain, all machinery with liquids to normal operating level, and _____.                   | derrick                               | lower hull fuel                         | eight anchor buoys                | normal food supplies for 79 persons |         |
| 4 | 3524 | C | Each fireman's outfit and its spare equipment on a tankship must be stowed in a(n) _____.  | locked cabinet in the machinery space | unlocked cabinet in the machinery space | separate and accessible location  | location near a fire hydrant        |         |

|   |      |   |   |                                     |                              |   |                              |         |
|---|------|---|---|-------------------------------------|------------------------------|---|------------------------------|---------|
| 4 | 3525 | C | Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, derrick, traveling block in the lowest position, mooring chain, all machinery with liquids to normal operating level, and _____.  | normal food supplies for 79 persons | eight anchor buoys           | anchors                                   | lower hull fuel              |         |
| 4 | 3526 | A | A message by flashing light consists of the call, the text, the ending, and the _____.  | identity                            | time of origin               | reply                                     | procedure code               |         |
| 4 | 3527 | B | Among the equipment included in the DEEP DRILLER lightweight are the loading hoses, derrick, traveling block in the lowest position, anchors, all machinery with liquids to normal operating level, and _____.  | normal food supplies for 79 persons | mooring chain                | lower hull fuel                           | eight anchor buoys           |         |
| 4 | 3528 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 271.2 ft                            | 288.8 ft                     | 294.4 ft                                  | 305.3 ft                     | ST-0137 |
| 4 | 3529 | B | The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.15 feet                           | 2.05 feet                    | 1.95 feet                                 | 1.75 feet                    | ST-0138 |
| 4 | 3531 | A | The draft of the DEEP DRILLER in the lightweight condition is _____.  | 16.19 feet                          | 17.71 feet                   | 17.96 feet                                | 18.35 feet                   |         |
| 4 | 3532 | D | Your vessel's existing draft is FWD 19'-08", AFT 20'-04". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 840 long tons are loaded in No. 1 hatch.   | FWD 18'-08", AFT 21'-06"            | FWD 18'-09", AFT 21'-07"     | FWD 18'-11", AFT 21'-09"                  | FWD 22'-00", AFT 19'-02"     |         |
| 4 | 3533 | C | If the maximum amount of weight is stored in the pipe racks of the DEEP DRILLER, what is the weight per square foot?  | 250.0 pounds per square foot        | 312.5 pounds per square foot | 350.0 pounds per square foot              | 400.0 pounds per square foot |         |
| 4 | 3534 | C | When a passenger vessel's plans must be permanently exhibited, they are NOT required to show information on the _____.  | fire detection system               | portable fire extinguishers  | lifeboats, liferafts, and life preservers | ventilation systems          |         |
| 4 | 3535 | C | The marine riser on the DEEP DRILLER should be disconnected if it appears the ball joint angle will exceed 10° or the mooring line tensions will exceed _____.  | 348 kips                            | 500 kips                     | 522 kips                                  | 600 kips                     |         |

|   |      |   |  |  |  |  |  |  |
|---|------|---|--|--|--|--|--|--|
| 4 | 3536 | A | There are two disadvantages to CO2 as a firefighting agent. One of these is the limited quantity available, and the other is _____.  | the lack of cooling effect on heated materials         | that it cannot be used in a dead ship situation with no electrical power to the CO2 pump | that it breaks down under extreme heat to form poisonous gases | there is no effect on a class A fire even in an enclosed space       |  |
| 4 | 3537 | D | The marine riser on the DEEP DRILLER should be disconnected if it appears the mooring line tensions will exceed 522 kips or the ball joint angle will exceed _____.  | 4°   | 5°   | 7°   | 10°  |  |
| 4 | 3538 | B | The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 24'-00". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 100.7 tons of seawater.   | FWD 23'-00.3", AFT 23'-05.0"                           | FWD 23'-01.0", AFT 23'-05.7"   | FWD 22'-11.3", AFT 23'-04.0"                                   | FWD 22'-10.3", AFT 23'-06.0"   |  |
| 4 | 3539 | D | Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 33 lbs. | 1010 tons each   | 1025 tons each   | 1050 tons each   | 1070 tons each   |  |
| 4 | 3540 | A | How should the letter "R" be pronounced when spoken on the radiotelephone?   | ROW ME OH  | AR AH  | ROA MA O   | AR EE  |  |
| 4 | 3541 | D | The DEEP DRILLER as currently configured is limited to a maximum drilling depth of _____.  | 18,400 feet  | 20,600 feet  | 22,800 feet  | 25,000 feet  |  |
| 4 | 3542 | B | An aircraft has indicated that he wants you to change course and follow him. You cannot comply because of an emergency on board. Which signal should you make?   | Fire a red flare at night or a red smoke signal by day | Send the Morse signal "N" by flashing light  | Make a round turn (360°) and resume course                     | Make an "S" turn (hard right then hard left) and resume course       |  |
| 4 | 3543 | D | The DEEP DRILLER's lightweight is the condition prior to loading _____.  | deck load  | deck load and lower-hull liquids   | deck load, lower-hull liquids, and external loads              | deck load, lower-hull liquids, external loads, and deploying anchors |  |
| 4 | 3544 | D | A message by flashing light consists of the call, the identity, the text, and the _____.   | destination  | answer   | time   | ending   |  |
| 4 | 3545 | A | Until a change to lightweight has been approved, the weights and center of gravity locations for the changes to lightweight shown in the permanent record for the Deep Driller are treated as _____.   | variable load  | fixed load   | basic load   | gross tonnage  |  |



|   |      |   |  |  |  |  |   |         |
|---|------|---|--|--|--|--|---|---------|
| 4 | 3546 | D | According to the regulations for passenger vessels, a "motor vessel" is one which is propelled by machinery other than steam and is more than _____.   | 16 ft. in length   | 34 ft. in length   | 45 ft. in length   | 65 ft. in length  |         |
| 4 | 3547 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 3.5 ft                                      | Available GM 3.9 ft  | Available GM 4.3 ft  | Available GM 4.8 ft   | ST-0139 |
| 4 | 3548 | B | You are on a Mariner class cargo vessel. Your drafts are: FWD 26'-06", AFT 28'-02". You wish to increase the calculated GM of 2.7' to 2.9'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.) | Tanks: DB1   | Tanks: DB1, DT1  | Tanks: DB2   | Tanks: DB1, DT1, DT6  |         |
| 4 | 3549 | C | The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-10", AFT 18'-06". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.     | FWD 18'-00", AFT 19'-06"                                 | FWD 18'-02", AFT 19'-04"   | FWD 18'-04", AFT 19'-02"   | FWD 18'-06", AFT 19'-00"  | ST-0140 |
| 4 | 3551 | A | Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?   | Carbon monoxide  | Carbon dioxide   | Hydrogen sulfide   | Nitric oxide  |         |
| 4 | 3552 | C | You are communicating by radiotelephone using the International Code of Signals. What is the correct method of sending the group 1.3?  | "Wun point tree"   | "Unaone point tercetree"   | "Unaone decimal terrathree"  | "One decimal three"   |         |
| 4 | 3553 | A | The DEEP DRILLER is loaded as shown in Sample Load Form #3 (Preparing to Drill). What is the margin on the maximum allowable KG while drilling?  | 4.58 feet  | 5.24 feet  | 6.27 feet  | 6.94 feet   |         |
| 4 | 3554 | A | You are underway in mid-ocean, when you hear a distress message over the VHF radio. The position of the sender is 20 miles away. What action should you take?  | Immediately acknowledge receipt of the distress message. | Defer acknowledgment for a short interval so that a coast station may acknowledge receipt. | Do not acknowledge receipt until other ships nearer to the distress have acknowledged. | Do not acknowledge because you are too far away to take action. |         |
| 4 | 3555 | C | What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft if the winds are greater than 70 knots?   | 912,120 foot-tons  | 942,120 foot-tons  | 996,522 foot-tons  | 998,927 foot-tons   |         |
| 4 | 3556 | A | The normal equipment of every rescue boat shall include _____.   | compass  | one 50 meter line  | one can opener   | All of the above  |         |

|   |      |   |  |  |   |  |   |  |
|---|------|---|--|--|---|--|---|--|
| 4 | 3557 | D | What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft if the winds are less than 70 knots?      | 912,120 foot-tons  | 933,124 foot-tons                       | 996,529 foot-tons  | 998,929 foot-tons   |  |
| 4 | 3558 | A | Limit switches are located on the survival craft winch systems for OSVs to _____.  | stop the winch just before the survival craft reaches final stowage position | limit the amount of cable on the drum   | limit the ascent rate  | stop the winch in case the craft's weight exceeds the load lift limit |  |
| 4 | 3559 | A | The rescue boat on an OSV is not required to carry a _____.  | fishing kit  | searchlight                             | sea anchor   | radar reflector   |  |
| 4 | 3560 | D | How should the number "4" be pronounced when spoken on the radiotelephone?   | QUAD-ROS-FOOR  | NUM-ERL-FOUR                            | NUMB-ER-FOWER  | KAR-TAY-FOWER   |  |
| 4 | 3561 | D | The DEEP DRILLER is operating with KGL at the maximum allowable value (70 knots) at a 60 feet draft. What is the value of GML?                                   | 0.05 foot  | 1.02 feet                               | 1.06 feet  | 2.63 feet   |  |
| 4 | 3562 | C | The Master or person-in-charge of an OSV shall insure that each deck from which rescue boats are launched is _____.  | surfaced with a nonskid texture  | roped off to prevent unnecessary access | kept clear of any obstructions that would interfere with launching | posted with a list of persons assigned to the rescue boat             |  |
| 4 | 3563 | D | Because of the presence of 75 knot winds, the DEEP DRILLER is at survival draft. KGL is 1.24 feet less than the maximum allowed. What is the value of GML?       | 0.15 foot  | 1.00 foot                               | 1.24 feet  | 1.39 feet   |  |
| 4 | 3564 | A | The sea painter of a rescue boat should be led _____.  | forward and outboard of all obstructions                                     | forward and inboard of all obstructions | up and down from the main deck                                     | to the foremost point on the vessel                                   |  |
| 4 | 3565 | D | What are the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at a draft of 60 feet if the winds are less than 70 knots?  | 942,120 foot-tons  | 946,271 foot-tons                       | 974,441 foot-tons  | 1,059,885 foot-tons   |  |
| 4 | 3566 | D | The normal equipment of every rescue boat shall include _____.   | buoyant oars   | one 50 meter line                       | one first aid kit  | All of the above  |  |
| 4 | 3567 | A | What are the maximum vertical moments including free surface moments permitted on the DEEP DRILLER at a draft of 60 feet if the winds are greater than 70 knots? | 942,120 foot-tons  | 946,271 foot-tons                       | 974,441 foot-tons  | 1,059,885 foot-tons   |  |
| 4 | 3569 | D | If help has not arrived in 10-12 hours after abandoning a vessel in a rescue boat, you should _____.   | go in one direction until the fuel runs out                                  | steer a course for the nearest land     | steer a course for the nearest sea lane                            | shut down the engines if installed and put out the sea anchor         |  |

|   |      |   |  |   |   |   |   |         |
|---|------|---|--|---|---|---|---|---------|
| 4 | 3570 | B | How many means of escape must be provided from passenger areas on a passenger vessel of 500 GT?  | One   | Two   | Three   | Two, unless there is an elevator provided               |         |
| 4 | 3571 | B | The DEEP DRILLER is anchoring in 600 feet of water. In the absence of environmental forces, the mooring lines should be adjusted to _____.   | 245 kips  | 222 kips  | 237 kips  | 194 kips  |         |
| 4 | 3572 | C | Your vessel's existing draft is FWD 25'-04", AFT 24'-08". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 634 long tons are discharged from NO. 19 hatch.   | FWD 25'-00 1/4", AFT 25'-04 1/8"                | FWD 25'-02 3/4", AFT 23'-08 5/8"                                  | FWD 25'-05 1/4", AFT 23'-08 5/8"                                | FWD 25'-10 1/4", AFT 23'-11 3/4"                        |         |
| 4 | 3573 | B | The DEEP DRILLER in transit is level at 23.0 feet draft. Strong winds are blowing from the starboard. A careful load form calculation determines that the TCG is 2.0 feet to starboard. What is the value of the wind heeling moment?              | 4,339 foot-long tons                            | 26,033 foot-long tons   | 39,050 foot-long tons   | 78,099 foot-long tons                                   |         |
| 4 | 3574 | B | How many fire axes should be carried by a 700 GT cargo vessel, navigating the Great Lakes?   | 8   | 6   | 4   | 2   |         |
| 4 | 3575 | D | While in transit at a draft of 20.5 feet, the DEEP DRILLER has a KGL of 65.00 feet. What is the GML?   | 7.55 feet                                       | 5.42 feet   | 5.30 feet   | 5.10 feet   |         |
| 4 | 3576 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.                 | 1220 tons                                       | 840 tons  | 460 tons  | 344 tons  | ST-0141 |
| 4 | 3577 | C | While being towed at a 19.5 foot draft, the DEEP DRILLER experiences single amplitude rolls of 10° with a period of 8 seconds. You should _____.   | continue towing operations at a 19.5 foot draft | ballast the rig to a 60 foot draft and continue towing operations | ballast the rig to a 45 foot draft and check the vessel motions | alter course to bring the wind off the starboard beam   |         |
| 4 | 3578 | B | The "call" part of a signal by flashing light is made by the general call or by _____.   | sending "CQ"                                    | the identity signal of the station called                         | spelling the name of the station called                         | omitting the call if the name of the station is unknown |         |
| 4 | 3579 | C | Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 3 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 34 lbs. | 1150 tons each                                  | 1180 tons each  | 1220 tons each  | 1250 tons each  |         |

|   |      |   |   |   |  |  |   |         |
|---|------|---|---|---|--|--|---|---------|
| 4 | 3580 | A | How should the letter "V" be pronounced when spoken on the radiotelephone?  | VIK TAH   | VIC TO RE  | VIX TOO RE                                   | VEE   |         |
| 4 | 3581 | A | The DEEP DRILLER, at a draft of 58 feet, has VM of 900,000 ft-tons, and FSMT of 20,000 ft-tons. What is the KGT?  | 51.6 feet   | 52.3 feet  | 53.8 feet                                    | 55.0 feet   |         |
| 4 | 3582 | C | You are downbound in an ice filled channel. An icebreaker is meeting you and sounds two short, one prolonged, and two short blasts on the whistle. What action should you take? | No action is required; the icebreaker will move out of the channel. | Move to the right hand side of the channel and slow to bare steerageway. | Stop your headway and await further signals. | Slow to bare steerageway and be prepared to come ahead as the icebreaker commences escorting your vessel. |         |
| 4 | 3583 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the KG of the liquid load.                          | 2.6 feet  | 2.8 feet   | 3.1 feet                                     | 4.3 feet  | ST-0142 |
| 4 | 3585 | D | When a man who has fallen overboard is being picked up by a rescue boat, the boat should normally approach with the wind _____.   | astern and the victim just off the bow                              | ahead and the victim just off the bow                                    | just off the bow and the victim to windward  | just off the bow and the victim to leeward  |         |
| 4 | 3586 | C | A person has fallen overboard and is being picked up with a rescue boat. If the person appears in danger of drowning, the rescue boat should be maneuvered to make _____.       | an approach from leeward  | an approach from windward  | the most direct approach                     | an approach across the wind   |         |
| 4 | 3587 | D | A person has fallen overboard and is being picked up with a rescue boat. If the person appears in danger of drowning, the rescue boat should be maneuvered to make _____.       | an approach from leeward  | an approach from windward  | an approach across the wind                  | the most direct approach  |         |
| 4 | 3588 | B | For the purpose of training and drills, if reasonable and practicable, rescue boats on an OSV must be launched with their assigned crew _____.                                  | once a week   | once a month   | once a year                                  | twice a year  |         |
| 4 | 3590 | B | The patrolman, while on duty on a passenger vessel, must have in his possession a(n) _____.   | nightstick  | flashlight   | passenger list showing assigned berths       | A-I fire extinguisher   |         |

|   |      |   |  |   |  |  |   |  |
|---|------|---|--|---|--|--|---|--|
| 4 | 3591 | C | With no environmental forces on the DEEP DRILLER, the average of the starboard drafts is 59.0 feet, and the average of the port drafts is 61.0 feet. KGT is 52.84 feet. What is the value of TCG?                                      | -2.00 feet                                      | -1.00 foot   | -0.16 foot                                     | -0.10 foot                                      |  |
| 4 | 3592 | A | When should the emergency position-indicating radio beacon be activated after abandoning an OSV?   | Immediately                                     | After one hour   | Only when another vessel is in sight           | Only after sunset                               |  |
| 4 | 3593 | C | The DEEP DRILLER is level at a draft of 58 feet when there are no environmental forces. What is the value of LCG?  | 0.00 (amidships)                                | 2.23 feet forward of amidships                                       | 2.26 feet forward of amidships                 | 2.31 feet forward of amidships                  |  |
| 4 | 3594 | D | After having activated the emergency position indicating radio beacon, you should _____.   | turn it off for 5 minutes every half-hour       | turn it off and on at 5 minute intervals                             | turn it off during daylight hours              | leave it on continuously                        |  |
| 4 | 3595 | A | The DEEP DRILLER is level at a draft of 58 feet when there are no environmental forces. What is the value of TCG?  | 0.00 on the centerline                          | 2.23 feet forward of amidships                                       | 2.26 feet forward of amidships                 | 2.31 feet forward of amidships                  |  |
| 4 | 3596 | D | The light on a life jacket must be replaced _____.   | when the power source is replaced               | each year after installation   | every six months                               | when it is no longer serviceable                |  |
| 4 | 3597 | C | The DEEP DRILLER has a KGT of 52.90 feet while at a draft of 58.0 feet. List is 2.0 feet to port. What is the value of TCG?  | -0.10 foot                                      | -0.13 foot   | -0.16 foot                                     | -0.19 foot                                      |  |
| 4 | 3598 | D | If you have to abandon ship, the EPIRB can be used to _____.   | hold the survival craft's head up into the seas | generate orange smoke  | seal leaks in rubber rafts                     | send radio homing signals to searching aircraft |  |
| 4 | 3599 | A | What should you do with your emergency position indicating radio beacon if you are in a lifeboat during storm conditions?  | Bring it inside the liferaft and leave it on.   | Bring it inside the liferaft and turn it off until the storm passes. | Leave it outside the liferaft and leave it on. | Leave it outside the liferaft and turn it off.  |  |
| 4 | 3600 | A | How should the number "3" be pronounced when spoken on the radiotelephone?   | TAY-RAH-TREE                                    | BEEES-SOH-THREE  | NUM-ERL-THREE                                  | TRIC-THREE                                      |  |
| 4 | 3601 | B | For the DEEP DRILLER, the maximum permissible offset which can be tolerated while drilling is _____.   | 10% of water depth                              | 6% of water depth  | 4% of water depth                              | 2% of water depth                               |  |
| 4 | 3602 | C | You are on a Mariner class cargo vessel. Your drafts are: FWD 22'-06", AFT 25'-06". You wish to increase the calculated GM of 4.8' to 5.9'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.) | Tanks: DB3, DB4                                 | Tanks: DB5, DT6  | Tanks: DB2, DB5                                | Tanks: DB2, DB6, DB7                            |  |

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| 4 | 3603 | B | While anchored in 600 feet water depth, 3,150 feet of chain is deployed for line #8. Tension on that line is 220 kips. According to the DEEP DRILLER Operating manual, how much of that chain lies along the bottom? | 994 feet  | 1,422 feet   | 1,728 feet   | 2,550 feet   |
| 4 | 3604 | B | You are the first vessel to arrive at the scene of a distress. Due to the volume of traffic on the radio, you are unable to communicate with the vessel in distress. Which action should you take?                   | Switch to flag hoists.                                      | Broadcast "Seelonce Distress".   | Broadcast "Charlie Quebec-Mayday-Quiet".   | Key the microphone three times in quick succession.                                    |
| 4 | 3605 | B | While anchored in 700 feet of water, 3,150 feet of chain is deployed for line #4. Tension on that line is 200 kips. According to the DEEP DRILLER Operating Manual, how much of that chain lies along the bottom?    | 1,218 feet  | 1,398 feet   | 1,752 feet   | 1,844 feet   |
| 4 | 3607 | A | With the DEEP DRILLER anchored in 500 feet of water and with the tension on the mooring chain of 170 kips, the length of the catenary is _____.  | 1,378 feet  | 1,423 feet   | 1,591 feet   | 1,624 feet   |
| 4 | 3608 | A | A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.  | comes over the bow  | blows the fire back toward the vessel                                  | comes over the stern   | comes over either beam   |
| 4 | 3609 | C | General arrangement plans shall be permanently exhibited on all passenger vessels of at least _____.   | 200 GT and over   | 500 GT and over  | 1000 GT and over   | 1500 GT and over   |
| 4 | 3610 | A | A passenger vessel is underway. When may passengers visit the pilothouse?  | Passengers are excluded from the pilothouse while underway. | Passengers are permitted in the pilothouse during daylight hours only. | Passengers are permitted to visit the pilothouse when authorized by the Master and officer of the watch. | Passengers are permitted in the pilothouse when they are escorted by a ship's officer. |
| 4 | 3611 | D | Each life jacket light that has a non-replaceable power source must be replaced _____.   | every 6 months after initial installation                   | every 12 months after initial installation                             | every 24 months after initial installation   | on or before the expiration date of the power source                                   |
| 4 | 3612 | D | Your vessel's existing draft is FWD 14'-00", AFT 16'-00". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 350 long tons are discharged from No. 13 hatch.                         | FWD 13'-03 5/8", AFT 15'-03 1/8"                            | FWD 13'-04 3/4", AFT 15'-03 1/4"                                       | FWD 13'-05 1/5", AFT 15'-04 3/5"   | FWD 13'-08 4/5", AFT 15'-08 4/5"   |
| 4 | 3613 | D | You are in a survival craft broadcasting a distress message. What information would be essential to your rescuers?   | The nature of the distress                                  | The time of day  | Your radio call sign   | Your position by latitude and longitude  |

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| 4 | 3614 | D | While proceeding towards a distress site you hear the message "Seelonce Feenee" over the radiotelephone. Which action should you take?   | Resume base course and speed because the distress situation is over. | Do not transmit over the radiotelephone. | Relay the initial distress message to the nearest shore station. | Resume normal communications on the guarded frequency. |         |
| 4 | 3615 | B | The DEEP DRILLER is moored in 700 feet of water. The tension on anchor line #3 is 200 kips. What is the vertical component of chain tension for that line?   | 59.1 long tons   | 60.9 long tons                           | 89.3 long tons   | 487.2 long tons  |         |
| 4 | 3617 | C | The DEEP DRILLER is moored in 600 feet of water. The average line tension is 190 kips. What is the total vertical component of chain tension?  | 55.3 long tons   | 428.8 long tons                          | 442.4 long tons  | 678.4 long tons  |         |
| 4 | 3618 | C | The SS AMERICAN MARINER has drafts of: FWD 28'-00", AFT 29'-00". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 81.05 tons of seawater.                         | FWD 28'-06.2", AFT 28'-06.2"   | FWD 28'-06.3", AFT 28'-08.0"             | FWD 28'-07.3", AFT 28'-07.8"                                     | FWD 28'-10.0", AFT 28'-08.0"                           |         |
| 4 | 3620 | C | How should the letter "O" be pronounced when spoken on the radiotelephone?   | O C K T O W B E R  | O R I A N                                | O S S C A H  | O A K A M  |         |
| 4 | 3621 | C | The DEEP DRILLER is moored in 700 feet of water. The average tension on the mooring lines is 200 kips. What is the total vertical component of chain tension?  | 60.9 long tons   | 472.8 long tons                          | 487.2 long tons  | 714.4 long tons  |         |
| 4 | 3622 | B | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard. | 451 tons   | 1126 tons                                | 1451 tons  | 1726 tons  | ST-0143 |
| 4 | 3623 | D | You wish to communicate by radiotelephone with a foreign vessel using the International Code of Signals. This is indicated by the signal _____.  | "Charlie Quebec"   | "Code"                                   | "Kilo"   | "Interco"  |         |
| 4 | 3624 | A | What is the International Code signal for calling an unknown station using flashing light?   | AA AA  | UNK                                      | STA  | CQ   |         |

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| 4 | 3625 | C | The DEEP DRILLER is on location during a storm. Windward anchor tensions begin to exceed the test tensions. To reduce tensions while minimizing offset over the well, you should _____.  | increase tension on the leeward chain                                     | pay out more chain on the windward side                               | reduce tension on the leeward chains  | connect an emergency tow wire to the work boat                |
| 4 | 3626 | A | When personnel are lifted by a helicopter from an inflatable liferaft, the personnel on the raft should _____.   | deflate the floor of the raft to reduce the danger of capsizing           | inflate the floor of the raft to provide for additional stability     | remove their lifejackets to prepare for the transfer                        | take in the sea anchor to prevent fouling of the rescue sling |
| 4 | 3627 | A | The DEEP DRILLER is drilling on location at a 60 foot draft. Waves are approaching within 2 feet of the underside of the spider deck. You should _____.  | suspend drilling operations and deballast to a 45 foot draft              | continue drilling while ballasting to a 20 foot draft maximum air gap | deballast when the waves just begin to hit the underside of the spider deck | reduce tension on all anchor chains to increase draft         |
| 4 | 3628 | D | Each vessel in ocean and coastwise service must have an approved EPIRB. An EPIRB _____.  | must be stowed in a manner so that it will float free if the vessel sinks | must be stowed where it is readily accessible for testing and use     | is a device that transmits a radio signal                                   | All of the above  |
| 4 | 3629 | D | When a helicopter is lifting personnel from a rescue boat, the other individuals in the boat should _____.   | enter the water in case the person being lifted slips from the sling      | stand on the outside of the boat to assist the person being lifted    | remove their lifejackets to prepare for their transfer to the helicopter    | remain seated inside to provide body weight for stability     |
| 4 | 3630 | A | A passenger vessel is required to have a supervised patrol when _____.   | there are passengers berthed on board                                     | navigating in excess of eight hours                                   | the vessel has substantial wood in its construction                         | there is no automatic fire-detection system installed         |
| 4 | 3631 | A | During an ice storm on board the DEEP DRILLER, the rig is uniformly covered with 414 tons of ice. At the beginning of the storm the rig was at 45 foot draft. After the storm the rig was at a 48 foot draft. Assume a KG of 127 feet for the new ice and an original KG of 58 feet. What is the new KG of the DEEP DRILLER? | 59.74 feet  | 60.34 feet  | 61.19 feet  | 61.27 feet  |
| 4 | 3632 | D | When using a handheld smoke signal in a liferaft, you should activate the signal _____.  | on the upwind side  | inside the boat   | at the stern  | on the downwind side  |
| 4 | 3633 | B | The KG of the DEEP DRILLER increases from 57 feet to 59 feet while drilling at a 60 foot draft during an ice storm. What action should be taken?   | Continue drilling operations while waiting for the ice to melt            | Reduce the deck load until you reach the allowable KG for draft       | Notify the USCG that the rig is temporarily above the allowable KG          | Deballast to reach the allowable KG                           |



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| 4 | 3634 | C | You are underway in mid-ocean when you hear a distress message. The position of the sender is 150 miles away. No other vessel has acknowledged the distress. Your maximum speed is 5 knots and due to the seriousness of the distress, you cannot arrive on scene to provide effective assistance. What action should you take? | Do not acknowledge the distress message.                          | Send an urgency message about the distress.                      | Use the signal MAYDAY RELAY and transmit the distress message.   | Transmit a message as though your vessel was in distress. |         |
| 4 | 3635 | C | For the DEEP DRILLER, in deballasting to survival draft when threatened with heavy weather from 100 knot winds, a load form should be calculated to determine that _____.   | the maximum allowable KG is exceeded                              | KG corrected for free surface effects does not exceed 62.24 feet | KG corrected for free surface effects does not exceed 62.09 feet | GM remains the same                                       |         |
| 4 | 3636 | B | The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard.                                   | 3.15 feet   | 3.00 feet  | 2.90 feet  | 2.80 feet   | ST-0144 |
| 4 | 3637 | A | In anticipation of heavy weather, it is decided to deballast the DEEP DRILLER to survival draft. The marine riser should be disconnected, pulled, and laid down. After doing so, the riser tension will be _____.   | zero  | equal to the weight of the riser                                 | dependent on the water depth                                     | applied at the riser tensioner sheaves                    |         |
| 4 | 3638 | A | When using a handheld smoke signal in a liferaft, you should activate the signal _____.   | on the downwind side  | inside the boat  | at the stern   | on the upwind side  |         |
| 4 | 3639 | A | Which condition represents the appropriate time for setting off distress flares and rockets?  | Only when there is a chance of their being seen by rescue vessels | At half hour intervals   | At one hour intervals  | Immediately upon abandoning the vessel                    |         |
| 4 | 3640 | B | How should the number "2" be pronounced when spoken on the radiotelephone?  | NUM-BER-TOO   | BEEES-SOH-TOO  | DOS-SOH-TU   | NEM-MARL-TWO  |         |
| 4 | 3641 | B | Signaling devices required on inflatable liferafts include a(n) _____.  | Very pistol   | orange smoke signal  | air horn   | lantern   |         |
| 4 | 3642 | B | When communicating on the radiotelephone using plain English, what procedure word indicates the end of my transmission and that a response is necessary?  | Out   | Over   | Roger  | Wilco   |         |

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| 4 | 3643 | A | Under extremely heavy weather on the DEEP DRILLER, when operating conditions are too severe to permit the drill string from being tripped out of the hole and laid down in the pipe racks, it may be _____. | hung off   | placed in the setback  | supported by the lower marine riser package                            | supported by the tensioners                                 |  |
| 4 | 3644 | B | When should distress flares and rockets be used?  | Immediately upon abandoning the vessel                         | Only when there is a chance of their being seen by a rescue vessel | At one hour intervals  | At half hour intervals                                      |  |
| 4 | 3645 | C | Signaling devices which are required on inflatable liferafts include _____.   | a rocket shoulder rifle  | an oil lantern   | red flares   | an air horn   |  |
| 4 | 3646 | B | One of the signals, other than a distress signal, that can be used by a rescue boat to attract attention is a/an _____.   | red star shell   | searchlight  | burning barrel   | orange smoke signal   |  |
| 4 | 3647 | C | A distress signal _____.  | consists of 5 or more short blasts of the fog signal apparatus | consists of the raising and lowering of a large white flag         | may be used individually or in conjunction with other distress signals | is used to indicate doubt about another vessel's intentions |  |
| 4 | 3648 | A | All of the following are recognized distress signals under the Navigation Rules EXCEPT _____.   | a green star signal  | orange-colored smoke   | red flares   | the repeated raising and lowering of outstretched arms      |  |
| 4 | 3649 | D | A man aboard a vessel, signaling by raising and lowering his outstretched arms to each side, is indicating _____.   | danger, stay away  | all is clear, it is safe to pass                                   | all is clear, it is safe to approach                                   | a distress signal   |  |
| 4 | 3650 | A | If your passenger vessel is fitted with a loudspeaker system, it must be tested at least once _____.  | every week   | a day  | every trip   | a watch or once a trip, whichever is shorter                |  |
| 4 | 3651 | D | Distress signals may be _____.  | red flares   | smoke signals  | sound signals  | Any of the above  |  |
| 4 | 3652 | B | Your vessel's existing draft is FWD 17'-04", AFT 18'-08". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 765 long tons are discharged from No. 7 hatch.                 | FWD 15'-04 3/4", AFT 18'-04"                                   | FWD 15'-11 3/5", AFT 18'-11"                                       | FWD 18'-08 2/5", AFT 18'-05"   | FWD 18'-05 3/4", AFT 18'-10"                                |  |
| 4 | 3653 | B | When a vessel signals her distress by means of a gun or other explosive signal, the firing should be at intervals of approximately _____.   | 10 minutes   | 1 minute   | 1 hour   | 3 minutes   |  |
| 4 | 3654 | C | You are communicating on the radiotelephone using plain English. Which procedural word (proword) indicates that you have received another vessel's transmission?  | Out  | Over   | Roger  | Wilco   |  |

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| 4 | 3655 | D | You can indicate that your vessel is in distress by _____.   | displaying a large red flag  | displaying three black balls in a vertical line | sounding five or more short and rapid blasts on the whistle | continuously sounding the fog whistle |         |
| 4 | 3657 | C | For planning purposes, the time required to place the DEEP DRILLER at survival draft from the drilling mode to counter heavy weather is _____.   | 2 hours                      | 4 hours   | 6 hours   | 8 hours                               |         |
| 4 | 3658 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.   | 226.9 ft                     | 238.3 ft  | 252.4 ft  | 268.8 ft                              | ST-0145 |
| 4 | 3659 | A | Using the Guidance Manual for Loading the M.V. Grand Haven, determine the amount of ballast required in tank No. 1 (P&S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 43 lbs. | 23 tons each                 | 50 tons each                                    | 75 tons each  | 150 tons each                         |         |
| 4 | 3660 | B | How should the letter "W" be pronounced when spoken on the radiotelephone?   | DUB A U                      | WISS KEY  | WI NE   | WOO LF                                |         |
| 4 | 3661 | C | Under ideal conditions, the DEEP DRILLER can pick up and place pipe in the rack at a rate of about _____.  | 600 feet per hour            | 800 feet per hour                               | 1,000 feet per hour   | 1,200 feet per hour                   |         |
| 4 | 3662 | D | You are on a Mariner class cargo vessel. Your drafts are: FWD 24'-00", AFT 25'-08". You wish to increase the calculated GM of 3.0' to 4.1'. What tanks should you ballast? (Use the white pages in the Stability Data Reference Book.)           | Tanks: DB3, DT1A             | Tanks: DB2, DB6, DT6                            | Tanks: DB 3, FB7, DT1                                       | Tanks: DB4, DT6                       |         |
| 4 | 3663 | B | Before deballasting to survival draft in the event of predicted heavy weather, the DEEP DRILLER Operations Manual recommends that the mooring lines be slacked _____.  | 10 feet                      | 20 feet   | 30 feet   | 40 feet                               |         |
| 4 | 3664 | D | The SS AMERICAN MARINER has drafts of: FWD 29'-04", AFT 30'-06". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 101.6 tons of seawater.                                       | FWD 29'-04.5", AFT 30'-07.5" | FWD 29'-07.6", AFT 30'-05.0"                    | FWD 29'-04.5", AFT 30'-10.0"                                | FWD 30'-00.8", AFT 30'-01.0"          |         |
| 4 | 3665 | A | The time required to ballast the DEEP DRILLER to survival draft, when threatened with heavy weather, while under tow, is about _____.  | 2 hours                      | 3 hours   | 4 hours   | 5 hours                               |         |

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| 4 | 3666 | D | When you are firing a pyrotechnic distress signal, it should be aimed at _____.   | straight overhead            | at the vessel whose attention you are trying to get   | into the wind   | about 60 degrees above the horizon            |         |
| 4 | 3667 | A | The principal action in changing from transit to survival draft in the event heavy weather threatens is _____.  | ballasting                   | deballasting  | disconnecting   | hanging off                                   |         |
| 4 | 3668 | D | The SS AMERICAN MARINER is loaded with the cargo shown. Use the white pages of The Stability Data Reference Book to determine the amount of liquid loading required in the double bottom tanks to meet a one compartment standard.  | 920 tons                     | 1120 tons   | 1245 tons   | 1545 tons                                     | ST-0146 |
| 4 | 3669 | B | The free surface correction depends upon the dimensions of the surface of the free liquid and the _____.  | volume of liquid in the tank | displacement of the vessel                            | location of the tank in the vessel                                | height of the center of gravity of the vessel |         |
| 4 | 3670 | C | On a passenger vessel with stateroom accommodations, which space would NOT be required to be checked by the patrol between 10 pm and 6 am?  | galley                       | public spaces with an automatic fire detection system | pilothouse  | weather decks                                 |         |
| 4 | 3671 | D | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard center column below the waterline. Pumping from tanks 2S and 9S is not sufficient to prevent increasing starboard list. You should consider counterflooding in tank _____. | 2P                           | 9P  | C2BS  | C2BP  |         |
| 4 | 3672 | A | Which item of the listed survival craft equipment would be the most suitable for night signaling to a ship on the horizon?  | A red parachute flare        | A red handheld flare                                  | An orange smoke flare   | A flashlight                                  |         |
| 4 | 3673 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port center column below the waterline. Pumping from tanks 2P and 9P is not sufficient to prevent increasing port list. You should consider counterflooding in tank _____.           | 2S                           | 9S  | C2BS  | C2BP  |         |
| 4 | 3674 | C | Which condition represents the appropriate time for setting off distress flares and rockets?  | At one hour intervals        | At half hour intervals                                | Only when there is a chance of their being seen by rescue vessels | Immediately upon abandoning the vessel        |         |

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| 4 | 3675 | D | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port forward column below the waterline. Pumping from tank 2P and 3P is not sufficient to prevent increasing port list and bow down trim. You should consider counterflooding in tank _____.          | 2S   | 9S  | C2BS   | 10S   |
| 4 | 3676 | D | You have abandoned ship and after two days in a liferaft you can see an aircraft near the horizon apparently carrying out a search pattern. You should _____.  | switch the EPIRB to the homing signal mode | use the voice transmission capability of the EPIRB to guide the aircraft to your raft | turn on the strobe light on the top of the EPIRB | use visual distress signals in conjunction with the EPIRB |
| 4 | 3677 | B | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the starboard aft column below the waterline. Pumping from tanks 8S and 9S is not sufficient to prevent increasing starboard list and stern down trim. You should consider counterflooding in tank _____. | 1S   | 1P  | C2BP   | 10P   |
| 4 | 3678 | C | When giving mouth-to-mouth rescue breathing to an adult, you should breathe at the rate of how many breaths per minute?  | 4  | 8   | 12   | 20  |
| 4 | 3680 | A | When administering artificial respiration to an adult, the breathing cycle should be repeated about _____.   | 12 to 15 times per minute                  | 18 to 20 times per minute   | 20 to 25 times per minute                        | as fast as possible                                       |
| 4 | 3681 | A | The DEEP DRILLER, while loaded as shown in the Sample Load Form #4 (Drilling), suffers damage to the port aft column below the waterline. Pumping from tank 8P and 9P is not sufficient to prevent increasing port list and stern down trim. You should consider counterflooding in tank _____.            | 1S   | 1P  | C2BS   | 10S   |
| 4 | 3682 | B | At what rate would you render mouth to mouth or mouth to nose artificial respiration to an adult?  | 4 to 6 times per minute                    | 12 to 15 times per minute   | 20 to 30 times per minute                        | At least 30 times per minute                              |
| 4 | 3683 | B | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected starboard and aft inclination. The wind and waves are light. What might have caused the inclination?  | Mooring lines 6 and 7 have failed.         | The drilling crew has dumped the mud.   | The drill string has broken.                     | Ballast tanks have equalized into tank 10S.               |

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| 4 | 3684 | C | The rescuer can best provide an airtight seal during mouth-to-mouth resuscitation by pinching the victim's nostrils and _____.  | cupping a hand around the patient's mouth   | keeping the head elevated              | applying his mouth tightly over the victim's mouth      | holding the jaw down firmly            |  |
| 4 | 3685 | D | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing starboard and aft inclination. The wind and waves are light. This inclination could have been caused by _____. | the failure of mooring lines 6 and 7        | the drilling crew dumping the mud      | the drill string breaking                               | ballast tanks equalizing into tank 10S |  |
| 4 | 3686 | D | When applying chest compressions on an adult victim during CPR, the sternum should be depressed about _____.  | 1/2 inch or less                            | 1/2 to 1 inch                          | 1 to 1-1/2 inches                                       | 1-1/2 to 2 inches                      |  |
| 4 | 3687 | D | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing port and aft inclination. The wind and waves are light. This inclination could have been caused by _____.      | the failure of mooring lines 2 and 3        | the drilling crew dumping the mud      | the drill string breaking                               | ballast tanks equalizing into tank 10P |  |
| 4 | 3688 | A | You are administering chest compressions during CPR. Where on the victim's body should the pressure be applied?   | Lower half of the sternum                   | Tip of the sternum                     | Top half of the sternum                                 | Left chest over the heart              |  |
| 4 | 3689 | A | Changing rescuers while carrying out artificial respiration should be done _____.   | without losing the rhythm of respiration    | only with the help of two other people | by not stopping the respiration for more than 5 minutes | at ten-minute intervals                |  |
| 4 | 3690 | B | The MOST important element in administering CPR is _____.   | having the proper equipment for the process | starting the treatment quickly         | administering of oxygen                                 | treating for traumatic shock           |  |
| 4 | 3691 | D | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing port and forward inclination. The wind and waves are light. This inclination could have been caused by _____.  | the failure of mooring lines 5 and 6        | the drilling crew dumping the mud      | the drill string breaking                               | ballast tanks equalizing into tank 1P  |  |
| 4 | 3692 | A | Before CPR is started, you should _____.  | establish an open airway                    | treat any bleeding wounds              | insure the victim is conscious                          | make the victim comfortable            |  |

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| 4 | 3693 | D | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers an unexpected but slowly increasing starboard and forward inclination. The wind and waves are light. This inclination could have been caused by _____.   | the failure of mooring lines 7 and 8          | the drilling crew dumping the mud             | the drill string breaking   | ballast tanks equalizing into tank 1S                         |  |
| 4 | 3694 | B | When administering artificial respiration, it is MOST important to _____.   | monitor blood pressure                        | clear airways                                 | use the rhythmic pressure method  | know all approved methods                                     |  |
| 4 | 3695 | C | In storm conditions, when the environmental conditions are such that the DEEP DRILLER has disconnected the marine riser, the two leeward mooring lines should be _____.   | tightened                                     | slacked slightly                              | completely slacked  | adjusted to give the same line tensions as the windward lines |  |
| 4 | 3696 | B | The equipment required to remove an on-deck oil spill on a barge transferring oil must either be carried on board or _____.   | on a tug standing by                          | available by contract with the shore facility | kept at the shoreside hose connection during transfer                           | kept in a protected shoreside location readily accessible     |  |
| 4 | 3697 | C | In storm conditions, when slacking the leeward mooring lines of the DEEP DRILLER, maintain in the chain locker at least _____.  | 500 feet                                      | 350 feet                                      | 200 feet  | 100 feet  |  |
| 4 | 3698 | D | You are attempting to administer CPR to a victim. When you blow into his mouth it is apparent that no air is getting into the lungs. What should you do?  | Blow harder to force the air past the tongue. | Raise the victim's head higher than his feet. | Press on the victim's lungs so that air pressure will blow out any obstruction. | Re-tip the head and try again.                                |  |
| 4 | 3700 | B | Sign(s) of respiratory arrest requiring artificial respiration is(are) _____.   | vomiting                                      | blue color and lack of breathing              | irregular breathing   | unconsciousness   |  |
| 4 | 3701 | C | While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the rise in the height of the center of gravity corrected for longitudinal free surface effects? | 2.62 feet                                     | 2.20 feet                                     | 1.03 feet   | 0.71 foot   |  |
| 4 | 3702 | D | You may have to give artificial respiration after an accidental _____.  | drowning                                      | electrocution                                 | poisoning   | All of the above  |  |
| 4 | 3703 | B | While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the new height of the center of gravity corrected for longitudinal free surface effects?         | 58.78 feet                                    | 60.68 feet                                    | 61.53 feet  | 62.78 feet  |  |

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| 4 | 3704 | C | After a person has been revived by artificial respiration, he should be _____.   | walked around until he is back to normal                             | given several shots of whiskey   | kept lying down and warm                                | allowed to do as he wishes   |  |
| 4 | 3705 | C | While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the margin on maximum allowable KG? | 1.55 feet  | 1.23 feet  | 0.50 foot   | -1.45 feet   |  |
| 4 | 3706 | C | You are in charge of a fishing vessel with 18 individuals on board. You are required to conduct drills and give safety instruction at least once _____.  | every week   | every 15 days  | every month   | before you begin fishing   |  |
| 4 | 3707 | C | While loaded as shown in Sample Load Form #5 (Survival), an estimated 250 long tons of snow and ice accumulates on the DEEP DRILLER at an estimated height of 127 feet. Assuming no corrective ballasting, what is the new draft?                      | 48'-06"  | 47'-03 1/2"  | 46'-09 3/4"   | 44'-06"  |  |
| 4 | 3708 | D | If the patient vomits during mouth-to-mouth resuscitation, the rescuer should FIRST _____.   | ignore it and continue mouth-to-mouth ventilation                    | pause for a moment until the patient appears quiet again, then resume ventilation mouth-to-mouth | switch to mouth-to-nose ventilation                     | turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation |  |
| 4 | 3709 | C | When starting CPR on a drowning victim, you should _____.  | start chest compressions before the victim is removed from the water | drain water from the lungs before ventilating  | begin mouth-to-mouth ventilations as soon as possible   | do not tilt the head back since it may cause vomiting  |  |
| 4 | 3710 | A | Which statement is CORRECT with respect to inserting an airway tube?   | Only a trained person should attempt to insert an airway tube.       | A size 2 airway tube is the correct size for an adult.   | The airway tube will not damage the victim's throat.    | Inserting the airway tube will prevent vomiting.   |  |
| 4 | 3711 | A | Changing rescuers while carrying out artificial respiration should be done _____.  | without losing the rhythm of respiration                             | only with the help of two other people   | by not stopping the respiration for more than 5 minutes | at ten minute intervals  |  |
| 4 | 3712 | C | The rescuer can best provide an airtight seal during mouth to mouth ventilation by pinching the victim's nostrils and _____.   | cupping a hand around the patient's mouth                            | keeping the head elevated  | applying his mouth tightly over the victim's mouth      | holding the jaw down firmly  |  |



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| 4 | 3713 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing starboard list and bow down trim occurs. A leak in 1S is found. By deballasting from ballast tanks 2S and 3S, the inclination slowly decreases. The increase in the transverse free surface corrections is _____. | 1.25 feet  | 0.90 foot  | 0.84 foot  | 0.22 foot   |  |
| 4 | 3714 | C | If someone suffers a heart attack and has ceased breathing, you should _____.  | immediately give a stimulant, by force if necessary                  | make the victim comfortable in a bunk                        | immediately start CPR  | administer oxygen                                     |  |
| 4 | 3715 | B | The necessity for administering artificial respiration may be recognized by the victim's _____.  | vomiting   | blue color and lack of breathing                             | irregular breathing  | unconscious condition                                 |  |
| 4 | 3716 | C | In order to initiate CPR on a drowning victim, _____.  | start chest compressions before the victim is removed from the water | drain water from the lungs before ventilating                | begin mouth-to-mouth ventilations  | do not tilt the head back since it may cause vomiting |  |
| 4 | 3717 | B | During the passage of a severe storm, the DEEP DRILLER is at survival draft. Strong winds are blowing from the starboard. A careful load form calculation determined that, although the unit is level, the TCG is 2.0 feet to starboard. The value of the wind heeling moment is _____.  | 40,402 ft-long tons  | 32,099 ft-long tons  | 21,343 ft-long tons  | 19,982 ft-long tons                                   |  |
| 4 | 3718 | A | Treatments of heat exhaustion consist of _____.  | moving to a shaded area and laying down                              | bathing with rubbing alcohol                                 | placing the patient in a tub of cold water                                 | All of the above                                      |  |
| 4 | 3719 | D | Symptoms of heat stroke are _____.   | cold and moist skin, high body temperature                           | cold and dry skin, low body temperature                      | hot and moist skin, high body temperature                                  | hot and dry skin, high body temperature               |  |
| 4 | 3723 | A | A patient suffering from heat exhaustion should be _____.  | moved to a cool room and told to lie down                            | kept standing and encouraged to walk slowly and continuously | given a glass of water and told to return to work after 15 minutes of rest | None of the above is correct.                         |  |
| 4 | 3724 | C | Physical exertion on the part of a person who has fallen into cold water would _____.  | be the best thing to try if there was no rescue in sight             | increase survival time in the water                          | increase the rate of heat loss from the body                               | not affect the heat loss from the body                |  |
| 4 | 3725 | A | A crew member has suffered frostbite to the toes of both feet. You should _____.   | immerse the feet in warm water                                       | warm the feet with a heat lamp                               | warm the feet at room temperature  | rub the feet  |  |

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| 4 | 3726 | D | Treatment of frostbite includes _____.  | rubbing affected area with ice or snow   | rubbing affected area briskly to restore circulation                | wrapping area tightly in warm cloths                                       | warming exposed parts rapidly  |  |
| 4 | 3727 | A | The DEEP DRILLER is engaged in wire line logging. You have 10,000 feet of drill pipe and bottom hole assembly in the set back. Marine weather forecasts are predicting weather with winds in excess of 70 knots. Your first step to prepare for the storm should be to _____. | suspend wire line operations and run the drill string into the hole                                    | continue wire line operations and bring the rig to a 45 foot draft  | suspend wire line operations and dump your mud pits overboard              | increase tension on all anchor chains to minimize movement of the rig          |  |
| 4 | 3728 | A | A crew member has suffered frostbite to the toes of the right foot. Which is NOT an acceptable first aid measure?   | Rub the toes briskly.  | Elevate the foot slightly.  | Rewarm rapidly.  | Give aspirin or other medication for pain if necessary.                        |  |
| 4 | 3729 | B | A crew member suffering from hypothermia should be given _____.   | a small dose of alcohol  | treatment for shock   | a large meal   | a brisk rub down   |  |
| 4 | 3730 | D | The symptoms of heat exhaustion are _____.  | slow and strong pulse  | flushed and dry skin  | slow and deep breathing  | pale and clammy skin   |  |
| 4 | 3731 | A | If the DEEP DRILLER is damaged, the unit is designed to avoid downflooding in wind speeds up to _____.  | 50 knots   | 70 knots  | 90 knots   | 100 knots  |  |
| 4 | 3732 | B | Heat exhaustion is caused by excessive _____.   | loss of body temperature   | loss of water and salt from the body                                | gain in body temperature   | intake of water when working or exercising                                     |  |
| 4 | 3733 | B | In the event of damage to the DEEP DRILLER which results in flooding to one of the lower-hull tanks, pump from _____.   | nearby damaged tanks   | nearby undamaged tanks containing ballast                           | tanks on the opposite corner   | the opposite trim tank   |  |
| 4 | 3734 | B | Which procedure should be followed when individuals are rescued in cold climates and suffer from hypothermia?   | Give them brandy or other alcoholic stimulation to promote a return to an acceptable body temperature. | Move them to a warm room to gradually raise their body temperature. | Keep them moving to stimulate circulation to raise their body temperature. | Warm them under an electric blanket to rapidly regain normal body temperature. |  |
| 4 | 3735 | B | Which procedure should be followed when individuals are rescued in cold climates and suffer from hypothermia?   | Give them brandy or other alcoholic stimulation to promote a return to normal body temperature.        | Move them to a warm room to gradually raise their body temperature. | Keep them moving to stimulate circulation to raise their body temperature. | Immerse them in a hot bath to rapidly raise their body temperature.            |  |

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| 4 | 3736 | C | The most effective treatment for warming a crew member suffering from hypothermia is _____.   | running or jumping to increase circulation                           | raising body temperature rapidly by placing hands and feet in hot water | bundling the body in blankets to rewarm gradually          | laying prone under heat lamps to rewarm rapidly                   |  |
| 4 | 3737 | A | The most important consideration in the event the Deep Driller suffers damage is _____.   | preserve reserve buoyancy  | advise authorities  | pump from adjacent undamaged compartments                  | counterflood on the opposite corner                               |  |
| 4 | 3738 | A | A crew member is unconscious and the face is flushed. You should _____.   | lay the crew member down with the head and shoulders slightly raised | administer a liquid stimulant   | lay the crew member down with the head lower than the feet | attempt to stand the crew member upright to restore consciousness |  |
| 4 | 3739 | D | Which procedure should NOT be done for a person who has fainted?  | Revive the person with smelling salts.                               | Loosen the clothing.  | Lay the person horizontally.                               | Give pain reliever.   |  |
| 4 | 3740 | D | The proper stimulant for an unconscious person is _____.  | tea  | coffee  | whiskey and water  | ammonia inhalant  |  |
| 4 | 3741 | A | Because of the presence of 75 knot winds, the DEEP DRILLER is at survival draft. KGT is 3.24 feet less than the maximum allowed. What is the value of GMT?  | 5.32 feet  | 5.17 feet   | 3.39 feet  | 3.24 feet   |  |
| 4 | 3742 | A | A rescuer can most easily determine whether or not an adult victim has a pulse by checking the pulse at the _____.  | carotid artery in the neck   | femoral artery in the groin   | brachial artery in the arm                                 | radial artery in the wrist  |  |
| 4 | 3743 | C | An unconscious person should NOT be _____.  | placed in a position with the head lower than the body               | given an inhalation stimulant   | given something to drink                                   | treated for injuries until conscious                              |  |
| 4 | 3744 | A | Which should NOT be a treatment for a person who has received a head injury and is groggy or unconscious?   | Give a stimulant.  | Elevate his head.   | Stop severe bleeding.                                      | Treat for shock.  |  |
| 4 | 3745 | A | In reviving a person who has been overcome by gas fumes, what would you AVOID doing?  | Giving stimulants  | Prompt removal of the patient from the suffocating atmosphere           | Applying artificial respiration and massage                | Keeping the patient warm and comfortable                          |  |
| 4 | 3746 | D | A conscious victim who has suffered a blow to the head has symptoms that indicate the possibility of concussion. If the patient feels no indication of neck or spine injury, recommended treatment would include _____. | turning the victim's head to the side to keep his airway open        | positioning the victim so the head is lower than the body               | giving the victim water if he is thirsty, but no food      | elevating the head and shoulders slightly with a pillow           |  |
| 4 | 3747 | B | A person who gets battery acid in an eye should IMMEDIATELY wash the eye with _____.  | boric acid solution  | water   | baking soda solution                                       | ammonia   |  |

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| 4 | 3748 | D | A victim is coughing and wheezing from a partial obstruction of the airway. An observer should _____. | perform the Heimlich maneuver   | immediately start CPR   | give back blows and something to drink  | allow the person to continue coughing and dislodge the obstruction on his own |  |
| 4 | 3749 | D | If a person gets something in his or her eye and you see that it is not embedded, you can _____.      | get them to rub their eye until the object is gone                                  | remove it with a match or toothpick                                       | remove it with a piece of dry sterile cotton                                    | remove it with a moist, cotton-tipped applicator                              |  |
| 4 | 3750 | B | While providing assistance to a victim of an epileptic seizure, it is most important to _____.        | give artificial respiration   | prevent patient from hurting himself                                      | keep the patient awake and make him/her walk if necessary to keep him/her awake | remove any soiled clothing and put the patient in a clean bed                 |  |
| 4 | 3751 | A | A shipmate chokes suddenly, cannot speak, and starts to turn blue. You should _____.                  | perform the Heimlich maneuver   | make the victim lie down with the feet elevated to get blood to the brain | immediately administer CPR  | do nothing until the victim becomes unconscious                               |  |
| 4 | 3753 | D | A shipmate suffers a heart attack and stops breathing. You must _____.                                | immediately give a stimulant, by force if necessary                                 | make the victim comfortable in a bunk                                     | administer oxygen   | immediately start CPR   |  |
| 4 | 3754 | C | First aid means _____.  | medical treatment of accident   | setting of broken bones   | emergency treatment at the scene of the injury                                  | dosage of medications   |  |
| 4 | 3755 | C | To reduce mild fever the MOST useful drug is _____.   | bicarbonate of soda   | paregoric   | aspirin   | aromatic spirits of ammonia   |  |
| 4 | 3756 | A | Treatment of sunstroke consists principally of _____.   | cooling, removing to shaded area, and lying down                                    | bathing with rubbing alcohol  | drinking ice water  | All of the above  |  |
| 4 | 3757 | B | What are the symptoms of sun stroke?  | Temperature falls below normal, pulse is rapid and feeble, skin is cold and clammy. | Temperature is high, pulse is strong and rapid, skin is hot and dry.      | Temperature is high, pulse is slow and feeble, skin is clammy.                  | Temperature falls below normal, pulse is rapid, skin is clammy.               |  |
| 4 | 3758 | C | To treat a person suffering from heat exhaustion, you should _____.                                   | administer artificial respiration   | put him in a tub of ice water   | give him sips of cool water   | cover him with a light cloth  |  |
| 4 | 3759 | C | Seasickness is caused by rolling or rocking motions which affect fluids in the _____.                 | stomach   | lower intestines  | inner ear   | bladder   |  |
| 4 | 3760 | B | Symptoms of sea sickness include _____.   | fever and thirst  | nausea and dizziness  | stomach cramps and diarrhea   | reddening of skin and hives   |  |

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| 4 | 3761 | A | Symptoms of sugar diabetes include _____.   | increased appetite and thirst   | decreased appetite and thirst   | gain in weight   | elevated temperature  |  |
| 4 | 3762 | D | The symptoms of a fractured back are _____.   | leg cramps in the muscles in one or both legs   | pain and uncontrolled jerking of the legs and arms  | vomiting and involuntary urination or bowel movement   | pain at the site of the fracture and possible numbness or paralysis below the injury    |  |
| 4 | 3763 | B | What is the procedure for checking for spinal cord damage in an unconscious patient?                                    | Beginning at the back of the neck, and proceeding to the buttocks, press the spine to find where it hurts | Prick the skin of the hands and the soles of the feet with a sharp object to check for reaction | Selectively raise each arm and each leg and watch patient's face to see if he registers pain                   | Roll patient onto his stomach and prick along the length of his spine to check reaction |  |
| 4 | 3764 | C | What are symptom(s) of a ruptured appendix?   | Dilated pupils and shallow breathing  | Diarrhea and frequent urination   | Muscle tenseness in almost the entire abdomen  | Extreme sweating and reddening skin   |  |
| 4 | 3765 | C | When administering first aid you should avoid _____.  | any conversation with the patient   | instructing bystanders  | unnecessary haste and appearance of uncertainty  | touching the patient before washing your hands  |  |
| 4 | 3766 | B | The primary concern in aiding a back injury patient is _____.   | relieving the patient's pain by giving aspirin or stronger medication                                     | avoiding possible injury to the spinal cord by incorrect handling                               | preventing convulsions and muscle spasms caused by the pain  | providing enough fluids to prevent dehydration  |  |
| 4 | 3767 | B | When whistle signals are used for launching lifeboats, one short blast means _____.                                     | "use the float-free method only"  | "lower all boats"   | "raise all boats"  | "drill is over, secure all boats"   |  |
| 4 | 3768 | A | What is one of the FIRST actions you should take after abandoning and clearing away from a vessel?                      | Identify the person in charge.  | Gather up useful floating objects.  | Prepare for arrival of rescue units.   | Arrange watches and duties.   |  |
| 4 | 3769 | C | You hear the general alarm and ship's whistle sound for over 10 seconds. Traditionally, this is the signal for _____.   | abandon ship  | dismissal from fire and emergency stations  | fire and emergency   | man overboard   |  |
| 4 | 3770 | C | The abandon ship signal is _____.   | a continuous ringing of general alarm bells for at least 10 seconds                                       | a continuous ringing of the general alarm, and sounding of the ship's whistle                   | more than 6 short blasts and 1 long blast of the ship's whistle and the same signal on the general alarm bells | a continuous sounding of the ship's whistle   |  |
| 4 | 3771 | B | What is the decrease in longitudinal moments for the Deep Driller if 2.0 feet of ballast is transferred from 1S to 10P? | 15,265 ft-tons  | 14,609 ft-tons  | 7,293 ft-tons  | 5,174 ft-tons   |  |

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| 4 | 3772 | C | The abandon ship signal sounded by the vessel's whistle is _____.   | 6 short blasts and 1 long blast   | more than 6 short blasts   | more than 6 short blasts and 1 long blast  | 1 long blast of at least 10 seconds                              |  |
| 4 | 3773 | A | What is the ullage in P-Tank #4 of the DEEP DRILLER if the weight is 75.24 long tons?                                       | 4.0 feet  | 5.0 feet   | 10.2 feet  | 16.0 feet  |  |
| 4 | 3774 | B | The signal given to commence lowering the lifeboats is _____.   | 3 short blasts of the ship's whistle                                    | 1 short blast of the ship's whistle  | 3 long blasts of the ship's whistle  | 1 long blast of the ship's whistle                               |  |
| 4 | 3775 | A | The sounding in fuel oil tank 4P on the DEEP DRILLER is 8.75 feet. What are the transverse moments for this amount of fuel? | -17,416 ft-long tons  | -874 ft-long tons  | 3,992 ft-long tons   | 17,416 ft-long tons  |  |
| 4 | 3776 | B | If you continue to wear extra clothing when entering the water after abandoning your vessel, it will _____.                 | weigh you down  | preserve body heat   | reduce your body heat  | make it more difficult to breathe                                |  |
| 4 | 3777 | C | What is the weight of cement in P-tank #1 of the Deep Driller if the ullage is 3.4 feet?                                    | 11.5 long tons  | 16.6 long tons   | 54.2 long tons   | 78.2 long tons   |  |
| 4 | 3778 | D | When a ship is abandoned and there are several liferafts in the water, one of the FIRST things to be done is _____.         | separate the rafts as much as possible to increase chances of detection | transfer all supplies to one raft  | transfer all the injured to one raft   | secure the rafts together to keep them from drifting apart       |  |
| 4 | 3779 | D | If more than one liferaft is manned after the vessel has sunk, _____.   | each raft should go in a different direction in search of land          | the possibility of a search aircraft finding you is increased by spreading out | reduce the number of liferafts by getting as many people as possible into as few rafts as possible | tie each of the rafts together and try to stay in a single group |  |
| 4 | 3780 | B | One of the first actions to be taken by survivors when they have boarded an inflatable liferaft is to _____.                | stream the sea anchor   | take an anti-seasickness pill  | open the pressure relief valve   | drink at least one can of water                                  |  |
| 4 | 3781 | D | What is the weight of barite in P-tank #4 of the DEEP DRILLER if the ullage is 3.4 feet?                                    | 11.5 long tons  | 16.6 long tons   | 54.2 long tons   | 78.2 long tons   |  |
| 4 | 3782 | D | You have abandoned ship in tropical waters. Which procedure should be used during a prolonged period in a liferaft?         | Wet clothes during the day to decrease perspiration.                    | Get plenty of rest.  | Keep the entrance curtains open.   | All of the above   |  |
| 4 | 3783 | B | What is the weight of bulk in P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?                                      | 34.3 long tons  | 58.0 long tons   | 83.6 long tons   | 121.9 long tons  |  |
| 4 | 3785 | C | What are the vertical moments for P-Tank #1 on the DEEP DRILLER if the ullage is 3.0 feet?                                  | 1,167 foot-tons   | 4,002 foot-tons  | 6,758 foot-tons  | 9,739 foot-tons  |  |
| 4 | 3786 | B | When using the rainwater collection tubes of a liferaft, the FIRST collection should be _____.                              | passed around so all can drink  | poured overboard because of salt washed off the canopy                         | saved to be used at a later time   | used to boil food  |  |

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| 4 | 3787 | C | What is the VCG for the cement in P-Tank #1 on the DEEP DRILLER if the ullage is 6.4 feet?  | 116.24 feet                                     | 116.44 feet   | 119.81 feet  | 123.06 feet                                       |         |
| 4 | 3788 | B | When you hear three short blasts on the ship's whistle and the same signal on the general alarm bells, you _____.   | are required to be at your liferaft             | are dismissed from drills   | should point to the man overboard  | should start the fire pump                        |         |
| 4 | 3789 | B | The signal for a fire emergency on an OSV is _____.   | a 30 second on 30 second off alternating signal | the continuous blast of the ships whistle for not less than 10 seconds supplemented by the continuous ringing of the general alarm bells for not less than 10 seconds | an intermittent ringing of the general alarm for not less than ten seconds | announced over the PA system                      |         |
| 4 | 3790 | B | While reading the muster list you see that "3 short blasts on the whistle and three short rings on the general alarm bell bells" is the signal for _____.   | abandon ship                                    | dismissal from fire and emergency stations  | fire and emergency   | man overboard                                     |         |
| 4 | 3791 | D | What is the VCG of the additional load if P-tank #4 in the DEEP DRILLER Sample Load Form #1 (Transit) is completely filled ?  | 113.90 feet                                     | 117.01 feet   | 121.03 feet  | 123.06 feet                                       |         |
| 4 | 3792 | B | The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 3.10 feet                                       | 2.45 feet   | 2.00 feet  | 1.50 feet   | ST-0147 |
| 4 | 3793 | D | When the ullage is 6.4 feet in P-Tank #5 for the Deep Driller, what is the value of the longitudinal moment?  | -2,254 foot-tons                                | -2,949 foot-tons  | -3,392 foot-tons   | -4,249 foot-tons                                  |         |
| 4 | 3794 | D | During an abandonment or drill, the first person to arrive at the survival craft should _____.  | pass out food and water to personnel            | open the doors and start the sprinkler system   | activate the emergency release handle                                      | open the doors and prepare the craft for boarding |         |
| 4 | 3795 | B | When the ullage is 5.7 feet in P-Tank #6 for the Deep Driller, the transverse moment for P-Tank #6 is _____.  | 1,288 foot-tons                                 | 1,887 foot-tons   | 3,169 foot-tons  | 4,596 foot-tons                                   |         |
| 4 | 3796 | B | Which of the following steps should normally be taken first by those who have boarded a liferaft in an emergency situation?   | Ration food and water supplies                  | Search for survivors  | Determine position and closest point of land                               | Check pyrotechnic supplies                        |         |

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| 4 | 3797 | A | What are the longitudinal moments for the contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?  | -3,096 ft-tons   | -3,880 ft-tons  | -4,663 ft-tons   | -6,509 ft-tons  |  |
| 4 | 3799 | A | With no alternative but to jump from an OSV, the correct posture should include _____.  | holding down the lifejacket against the chest with one arm, crossing the other, covering the mouth and nose with a hand, and keeping the feet together | knees bent and held close to the body with both arms around legs                              | body straight and arms held tightly at the sides for a feet first entry into the water | both hands holding the lifejacket below the chin with knees bent and legs crossed |  |
| 4 | 3800 | D | If you have to jump in the water when abandoning ship, your legs should be _____.   | spread apart as far as possible  | held as tightly against your chest as possible  | in a kneeling position   | extended straight down and crossed at the ankles                                  |  |
| 4 | 3801 | B | What are the vertical moments for the cement contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?   | 4,198 ft-tons  | 7,067 ft-tons   | 7,096 ft-tons  | 14,921 ft-tons  |  |
| 4 | 3803 | C | For the DEEP DRILLER, what are the transverse moments for a sounding of 5 feet in tank C3P?   | 1,005 foot-tons  | 2,139 foot-tons   | -7,130 foot-tons   | -10,797 foot-tons   |  |
| 4 | 3804 | A | All OSV personnel should be familiar with survival craft _____.   | boarding and operating procedures  | maintenance schedule  | navigational systems   | fuel consumption rates  |  |
| 4 | 3805 | D | For the DEEP DRILLER, what are the longitudinal moments for a sounding of 15 feet in tank C3P?  | 1,055 foot-tons  | 7,772 foot-tons   | -21,391 foot-tons  | -25,669 foot-tons   |  |
| 4 | 3806 | A | A liferaft which has inflated bottom-up on the water _____.   | should be righted by standing on the carbon dioxide cylinder, holding the righting straps and leaning backwards  | should be righted by standing on the life line, holding the righting straps leaning backwards | will right itself when the canopy tube inflates  | must be cleared of the buoyant equipment before it will right itself              |  |
| 4 | 3807 | B | For the DEEP DRILLER, What are the vertical moments for a sounding of 10 feet in tank C3P?  | 1,055 foot-tons  | 4,754 foot-tons   | 14,621 foot-tons   | 17,113 foot-tons  |  |
| 4 | 3809 | B | Provided every effort is used to produce, as well as preserve body moisture content by avoiding perspiration, how long is it normally possible to survive without stored quantities of water? | Up to 3 days   | 8 to 14 days  | 15 to 20 days  | 25 to 30 days   |  |
| 4 | 3810 | D | If help has not arrived in 10-12 hours after having abandoned an OSV in a survival craft, you should _____.   | go in one direction until the fuel runs out  | plot course for the nearest land  | take a vote on the direction in which to go  | shutdown the engines and put out the sea anchor                                   |  |



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| 4 | 3811 | C | The sounding in fuel oil tank 4P on the DEEP DRILLER is 8.75 feet. What are the longitudinal moments for this amount of fuel?             | -17,416 ft-long tons   | -874 ft-long tons  | 3,992 ft-long tons   | 17,416 ft-long tons   |  |
| 4 | 3812 | A | If you have to abandon ship, and enter a liferaft, your main course of action should be to _____.   | remain in the vicinity of the sinking vessel   | head for the closest land  | head for the closest sea-lanes                               | get a majority opinion  |  |
| 4 | 3813 | B | The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. What are the vertical moments for this quantity of ballast?                     | 729 ft-long tons   | 991 ft-long tons   | 19,609 ft-long tons  | 27,652 ft-long tons   |  |
| 4 | 3814 | A | If you are forced to abandon ship in a rescue boat, you should _____.   | remain in the immediate vicinity   | head for the nearest land  | head for the closest sea-lanes                               | vote on what to do, so all hands will have a part in the decision |  |
| 4 | 3815 | C | Among the valves to open when deballasting using tanks 1P and 10P of the DEEP DRILLER is _____.   | 2 Port   | 24 Port  | 48 Port  | 44 Port   |  |
| 4 | 3816 | C | When abandoning an OSV, following the launching of the survival craft you should _____.   | plot a course for the nearest land   | take a vote on the direction in which to go  | stay in the immediate area                                   | go in one direction until fuel runs out                           |  |
| 4 | 3817 | A | What is the change in longitudinal moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P? | 10,944 foot-tons decrease  | 7,761 foot-tons decrease   | 6,707 foot-tons decrease                                     | 155 foot-tons decrease  |  |
| 4 | 3818 | A | To keep injured survivors warm in the water after abandoning an OSV, when no rescue craft is in sight, they should _____.                 | be placed in the middle of a small circle formed by the other survivors in the water | float on their backs with their arms extended for maximum exposure to the air                            | remove their life jackets and hold on to uninjured survivors | sip seawater at intervals of fifteen minutes                      |  |
| 4 | 3819 | B | If there are a number of survivors in the water after abandoning an OSV and no rescue craft are in sight, they should _____.              | tie themselves to the unit to avoid drifting with the current                        | group to form a small circle of survivors to create a warmer pocket of water in the center of the circle | send the strongest swimmer to shore for assistance           | from a raft by lashing their life jackets together                |  |
| 4 | 3820 | C | Once the daily ration of drinking water in a survival situation has been established, the drinking routine should include _____.          | small sips at regular intervals during the day                                       | a complete daily ration at one time during the day   | one-third the daily ration three times during the day        | small sips only after sunset                                      |  |
| 4 | 3821 | B | What is the change in transverse moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P?   | 10,944 foot-tons decrease  | 7,761 foot-tons increase   | 1,797 foot-tons increase                                     | 155 foot-tons decrease  |  |

|   |      |   |   |  |                           |                                       |                          |         |
|---|------|---|---|--|---------------------------|---------------------------------------|--------------------------|---------|
| 4 | 3822 | B | In the first 24 hours after abandoning a vessel, water should be given only to personnel who are _____.   | thirsty  | sick or injured           | wet                                   | awake                    |         |
| 4 | 3823 | C | What is the change in vertical moments for the DEEP DRILLER if 103.48 long tons of ballast is discharged from a full ballast tank 1P?   | 6,707 foot-tons decrease   | 4,984 foot-tons decrease  | 1,914 foot-tons decrease              | 155 foot-tons decrease   |         |
| 4 | 3824 | A | After abandoning a vessel, water consumed within the first 24 hours _____.  | will pass through the body with very little being absorbed by the system | will help prevent fatigue | will quench thirst for only two hours | help prevent seasickness |         |
| 4 | 3825 | A | What is the change in longitudinal moments for the DEEP DRILLER if 103.48 long-tons of ballast is transferred from a full ballast tank 1P to an empty ballast tank 10S?   | 21,913 foot-tons decrease  | 13,414 foot-tons decrease | 10,944 foot-tons decrease             | 6,707 foot-tons decrease |         |
| 4 | 3826 | B | You have abandoned ship and are in charge of a liferaft or survival craft. How much water per day should you permit each person to have after the first 24 hours?   | 1 can  | 1 pint                    | 1 quart                               | 1 gallon                 |         |
| 4 | 3827 | B | What is the change in transverse moments for the DEEP DRILLER if 103.48 long-tons of ballast is transferred from a full ballast tank 1P to an empty ballast tank 10S?   | 15,522 foot-tons increase  | 15,181 foot-tons increase | 3,594 foot-tons increase              | 1,797 foot-tons increase |         |
| 4 | 3829 | C | Inflatable liferafts shall be serviced at an approved servicing facility every 12 months or not later than the next vessel inspection for certification. However, the total elapsed time between servicing cannot exceed _____. | 12 months  | 15 months                 | 17 months                             | 18 months                |         |
| 4 | 3830 | B | Inflatable liferafts must be overhauled and inspected at a U. S. Coast Guard approved service facility every _____.   | six months   | twelve months             | eighteen months                       | twenty-four months       |         |
| 4 | 3831 | C | Among the valves to open on the DEEP DRILLER, if you have to transfer ballast from Tank 10P to Tank 1S using #1 ballast pump, is valve _____.   | 24 Port  | 33 Port                   | 34 Port                               | 44 Port                  |         |
| 4 | 3832 | C | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 229.8 ft   | 234.3 ft                  | 246.8 ft                              | 251.5 ft                 | ST-0148 |

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| 4 | 3833 | A | Among the valves to open on the DEEP DRILLER, if you have to transfer ballast from Tank 1P to Tank 10S using #1 ballast pump, is valve _____.                   | 33 Starboard                                | 44 Starboard   | 33 Port                                       | 44 Port  |
| 4 | 3835 | A | What port-side valves must be open to transfer ballast from Tank 10P to Tank 1P on the DEEP DRILLER, using the Port #1 ballast pump?                            | 23, 35, 34, 33, 43, and 2                   | 23, 43, 33, and 1B                                       | 23, 33, 43, and 1                             | 23, 35, 34, 33, 43, and 1                            |
| 4 | 3837 | A | What port-side valves must be open to transfer ballast from Tank 1P to Tank 10P on the DEEP DRILLER using the Port #1 ballast pump?                             | 1, 33, 43, and 24                           | 1, 33, 44, 45, and 23                                    | 1, 34, 35, and 23                             | 1, 33, 43, 48, and 23                                |
| 4 | 3838 | A | Fire dampers prevent the spread of fire by _____.   | convection                                  | conduction   | radiation                                     | direct contact                                       |
| 4 | 3840 | B | The painter of the inflatable liferaft has a length of _____.   | 25 feet                                     | 100 feet   | 200 feet                                      | 400 feet   |
| 4 | 3841 | C | What is the change in the vertical moments for the DEEP DRILLER if 2.0 feet of ballast is transferred from a full ballast tank 3P to an empty ballast tank 10P? | 43 ft-tons increase                         | 69 ft-tons decrease                                      | 556 ft-tons decrease                          | 5,575 ft-tons decrease                               |
| 4 | 3842 | B | You must ensure that lifesaving equipment is _____.   | locked up                                   | readily accessible for use                               | inaccessible to passengers                    | on the topmost deck of the vessel at all times       |
| 4 | 3843 | D | The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. What are the longitudinal moments for this quantity of ballast?                                       | 729 ft-long tons                            | 6,707 ft-long tons                                       | 19,609 ft-long tons                           | 27,652 ft-long tons                                  |
| 4 | 3845 | C | On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 1S to Tank 10P using the #1 ballast pump is valve _____.                      | 33 Starboard                                | 44 Starboard   | 33 Port                                       | 44 Port  |
| 4 | 3847 | D | On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 10S to Tank 1P using the #2 ballast pump is valve _____.                      | 33 Starboard                                | 44 Starboard   | 33 Port                                       | 34 Port  |
| 4 | 3848 | D | Each personal flotation device light on an OSV that has a non-replacement power source must be replaced _____.  | every six months after initial installation | every 12 months after initial installation               | every 24 months after initial installation    | on or before the expiration date of the power source |
| 4 | 3849 | B | The capacity of any liferaft on board a vessel can be determined by _____.  | examining the Certificate of Inspection     | examining the plate on the outside of the raft container | referring to the Muster List ("Station Bill") | referring to the shipping articles                   |

|   |      |   |  |   |   |   |  |  |
|---|------|---|--|---|---|---|--|--|
| 4 | 3850 | D | Each personal flotation device light on an OSV that has a non-replaceable power source must be replaced _____.                             | every six months after initial installation   | every 12 months after initial installation  | every 24 months after initial installation  | on or before the expiration date of the power source |  |
| 4 | 3851 | B | On the DEEP DRILLER, among the valves to open when transferring ballast from Tank 10P to Tank 1S using the #2 ballast pump is valve _____. | 33 Starboard  | 36 Starboard  | 33 Port   | 36 Port  |  |
| 4 | 3852 | D | The light on a personal flotation device on an OSV must be replaced _____.   | when the power source is replaced   | each year after installation  | every six months  | when it is no longer serviceable                     |  |
| 4 | 3853 | D | Coast Guard Regulations (46 CFR) require inflatable liferafts to be equipped with _____.   | a first aid kit   | an instruction manual   | a sea anchor  | All of the above                                     |  |
| 4 | 3854 | B | According to the regulations, the capacity of a liferaft is required to be marked _____.   | on the Muster List ("Station Bill")   | at the liferaft stowage location  | on the Certificate of Inspection  | in the Operations Manual                             |  |
| 4 | 3855 | B | Which document will describe lifesaving equipment located aboard your vessel?  | Muster List ("Station Bill")  | Certificate of Inspection   | Forecastle Card   | Clearance Papers                                     |  |
| 4 | 3856 | D | The immersion suit requirements for OSV apply to units operating in the Atlantic Ocean _____.  | above 20 degrees North and below 20 degrees South   | above 25 degrees North and below 25 degrees South   | above 30 degrees North and below 30 degrees South                                   | above 32 degrees North and below 32 degrees South    |  |
| 4 | 3857 | C | Where would you find a list of the lifesaving equipment onboard your supply boat?  | Ship's Articles   | Muster List ("Station Bill")  | Certificate of Inspection   | U.S. Coast Guard Regulations                         |  |
| 4 | 3858 | B | Lifesaving equipment shall be stowed so that it will be _____.   | locked up   | readily accessible for use  | inaccessible to passengers  | on the topmost deck of the vessel at all times       |  |
| 4 | 3859 | D | When can a work vest be substituted for a lifejacket in the total count of the required lifesaving gear?                                   | When it is approved by the Coast Guard  | When working near or over the water   | When stowed away from the ring buoys  | A work vest may never be counted as a lifejacket.    |  |
| 4 | 3860 | C | Lifejackets should be stowed in _____.   | the forepeaks   | the pumproom  | readily accessible spaces   | locked watertight containers                         |  |
| 4 | 3861 | D | Coast Guard Regulations (46 CFR) require that life jackets shall be _____.   | provided for each person onboard  | provided for all personnel of watch   | readily accessible to persons in the engine room                                    | All of the above                                     |  |
| 4 | 3862 | C | In accordance with Coast Guard Regulations, Coast Guard approved buoyant work vests _____.   | should be stowed in engineering spaces in lieu of approved life jackets because they are less bulky and permit free movement in confined spaces | may be used as a substitute for approved life preservers during routine drills, but never during an emergency | should not be stowed where they could be confused with life jackets in an emergency | All of the above                                     |  |

|   |      |   |  |   |   |  |   |  |
|---|------|---|--|---|---|--|---|--|
| 4 | 3863 | B | On an OSV, how many ring buoys are required to have a buoyant line attached?   | One ring life buoy                              | One ring life buoy on each side of the OSV  | Three ring life buoys                              | Two ring life buoys on each side of the OSV           |  |
| 4 | 3864 | C | Of the required ring life buoys for an OSV, how many must be equipped with a waterlight?   | 8   | 4   | 2  | 1   |  |
| 4 | 3865 | B | What is the minimum required number of ring life buoys on an OSV certified for ocean service?  | 4   | 8   | 12   | 16  |  |
| 4 | 3866 | B | Each distress signal and self-activated smoke signal must be replaced not later than the marked date of expiration, or not more than how many months from the date of manufacture? | 48 months                                       | 42 months   | 36 months  | 30 months   |  |
| 4 | 3867 | D | Each OSV must carry _____.   | one category I 406 Mhz satellite EPIRB          | at least one life buoy on each side of the vessel fitted with a buoyant life line | at least 12 rocket parachute flares                | All of the above                                      |  |
| 4 | 3868 | B | The rescue boat on an OSV shall carry a tow line strong enough to tow the vessel's largest loaded liferaft at a speed of at least _____.   | 1 knot  | 2 knot  | 5 knot   | 10 knot   |  |
| 4 | 3870 | C | Each EPIRB required on an OSV shall be tested using the integrated test circuit and output indicator every _____.  | week  | two weeks   | month  | two months  |  |
| 4 | 3871 | B | On the DEEP DRILLER, among the port-side valves to open when deballasting from ballast tank 2P is valve _____.   | 3   | 5   | 6  | 7   |  |
| 4 | 3872 | C | For an OSV not on an international voyage, an approved substitute for an impulse projected type line throwing appliance is a _____.  | spring-loaded line thrower                      | hand thrown buoyant line  | shoulder type line throwing gun                    | heaving line  |  |
| 4 | 3873 | C | On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 8S is valve _____.  | 7   | 8   | 17   | 18  |  |
| 4 | 3875 | B | The breaking strength of the service lines of the rockets used with an impulse-projected, rocket type line throwing appliances is _____.   | 300 lbs   | 500 lbs   | 1000 lbs   | 1500 lbs  |  |
| 4 | 3876 | B | What is NOT a requirement for testing the line throwing appliance on a vessel?   | A drill should be conducted every three months. | A regular service line must be used when it's fired.                              | A regular projectile must be used when it's fired. | The actual firing is at the discretion of the Master. |  |
| 4 | 3877 | D | On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 2S is valve _____.  | 8   | 19  | 20   | 48  |  |

|   |      |   |   |   |   |  |  |  |
|---|------|---|---|---|---|--|--|--|
| 4 | 3879 | A | The signal given to commence lowering the lifeboats is _____.   | 1 short blast on the ship's whistle                     | 3 short blasts on the ship's whistle  | 3 long blasts on the ship's whistle                        | 1 long blast on the ship's whistle             |  |
| 4 | 3880 | D | The Emergency Position Indicating Radio beacon on an OSV vessel must be stowed _____.   | in an inside passageway                                 | in an approved bracket  | so that it is accessible from the pilothouse of the vessel | so that it will float free if the vessel sinks |  |
| 4 | 3881 | B | On the DEEP DRILLER, among the starboard-side valves to open when deballasting from ballast tank 2S is valve _____.                             | 3   | 5   | 6  | 7  |  |
| 4 | 3883 | C | Which vessel greater than 100 GT is NOT required to have an EPIRB.  | A sailing vessel  | A fishing vessel  | A non self-propelled vessel                                | A towing vessel                                |  |
| 4 | 3885 | A | On the DEEP DRILLER, among the starboard-side valves to open when flooding through the overboard discharge into ballast tank 1S is valve _____. | 2   | 3   | 7  | 37   |  |
| 4 | 3886 | D | Which type EPIRB must each ocean-going OSV carry?   | Class A   | Class B   | Class C  | Category I                                     |  |
| 4 | 3887 | C | The Master shall insure that the Emergency Position Indicating Radio beacon (EPIRB) is _____.   | secured inside the wheelhouse                           | tested annually   | tested monthly   | secured in the emergency locker                |  |
| 4 | 3888 | A | CATEGORY I EPIRB's transmit on frequencies that are monitored by _____.   | orbiting satellites in space                            | commercial radio stations   | private, commercial, and military aircraft                 | Both A & C                                     |  |
| 4 | 3891 | A | Which statement is TRUE concerning distress signals in a survival craft?  | Hand held flares and orange smoke signals are required. | If hand-held rocket-propelled parachute flares are provided, they are the only distress signals required. | Two hand-held smoke signals shall be provided.             | A Very pistol with twelve flares is required.  |  |
| 4 | 3892 | C | By regulation, orange smoke distress signals will expire not more than how many months from the date of manufacture?                            | 24 months   | 36 months   | 42 months  | 54 months                                      |  |
| 4 | 3893 | C | When filling fuel-oil tank 4S on the DEEP DRILLER, it is necessary to open valve _____.   | 9   | 10  | 11   | 12   |  |
| 4 | 3894 | C | A liferaft with a capacity of 8 people used in ocean service is required by regulations to carry _____.   | 8 liters of fresh water                                 | 12 units of provisions  | 12 liters of fresh water                                   | 24 units of provisions                         |  |
| 4 | 3895 | D | When filling fuel-oil tank 6P on the DEEP DRILLER, it is necessary to open valve _____.   | 9   | 10  | 11   | 12   |  |

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| 4 | 3896 | B | Life preservers must be marked with the _____.  | stowage space assigned                                 | vessel's name  | vessel's home port   | maximum weight allowed                               |         |
| 4 | 3897 | C | What is the maximum length of time that distress flares are approved for?   | 1 and 1/2 years  | 2 years  | 3 and 1/2 years  | 5 years  |         |
| 4 | 3900 | C | The life jackets on all vessels shall be _____.   | inspected weekly                                       | worn at all times  | readily available  | tested yearly  |         |
| 4 | 3901 | B | Among the valves on the DEEP DRILLER to open when using the Salt-Water Service Pump to pump water into tank 10S is _____.                             | 48   | 47   | 37   | 23   |         |
| 4 | 3902 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM. | Available GM 3.0 ft                                    | Available GM 3.7 ft                                      | Available GM 4.0 ft  | Available GM 4.2 ft                                  | ST-0149 |
| 4 | 3903 | C | Among the valves on the DEEP DRILLER which may be opened when using the Salt-Water Service Pump to pump water into Tank 1P is _____.                  | 33   | 36   | 46   | 48   |         |
| 4 | 3904 | D | The light on a life jacket must be replaced _____.  | when the power source is replaced                      | each year after installation                             | every six months   | when it is no longer serviceable                     |         |
| 4 | 3905 | A | On the DEEP DRILLER, when using the starboard #2 ballast pump to provide water to the main deck from the sea, it is necessary to open valves _____.   | 37, 35, 36, 45   | 37, 36, 46, 47   | 38, 47   | 38, 47, 45, 46                                       |         |
| 4 | 3906 | B | When a lifeline is required to be attached to a ring life buoy it must be at least _____.   | 30 feet long   | 60 feet long   | 90 feet long   | 120 feet long  |         |
| 4 | 3907 | C | Line throwing apparatus aboard ship must contain _____.   | two rockets, one of which shall be the buoyant type    | three rockets, one of which shall be the buoyant type    | four rockets, two of which shall be the buoyant type           | five rockets, two of which shall be the buoyant type |         |
| 4 | 3909 | B | Which statement is TRUE concerning the testing of the line-throwing appliance?  | It shall be fired at least once in every three months. | A drill in its use shall be held once in every 3 months. | Drills shall be held quarterly and it shall be fired annually. | No drills are required.                              |         |
| 4 | 3910 | C | Your vessel is required to have an impulse-projected line throwing appliance. The auxiliary line must _____.  | be of a light color                                    | be 250 meters in length                                  | have a breaking strength of 9000 lbs                           | be made of synthetic material                        |         |
| 4 | 3911 | C | For the DEEP DRILLER, it is recommended that the number of lower-hull ballast tanks with free surfaces be less than _____.                            | 2  | 4  | 6  | 8  |         |

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| 4 | 3912 | B | If you must enter water on which there is an oil fire, you should _____.   | protect your life preserver by holding it above your head   | enter the water on the windward side of the vessel  | keep both hands in front of your face to break the water surface when diving head first | wear very light clothing  |  |
| 4 | 3913 | A | The DEEP DRILLER, at a draft of 60 feet, has 50,000 ft-tons of longitudinal moments. How much ballast should be transferred between tanks 1P and 10P to level the unit longitudinally? | 45.3 long tons  | 90.6 long tons  | 118.1 long tons   | 236.1 long tons   |  |
| 4 | 3914 | A | If you must jump from a vessel, the correct posture includes _____.  | holding down the life preserver against the chest with one arm crossing the other, covering the mouth and nose with a hand, and feet together | knees bent and held close to the body with both arms around legs                          | body straight and arms held tightly at the sides for feet first entry into the water    | both hands holding the life preserver below the chin with knees bent and legs crossed |  |
| 4 | 3915 | A | The DEEP DRILLER, at a draft of 60 feet, has 35,000 ft-tons of longitudinal moments. How much ballast should be transferred between tanks 1P and 10P to level the unit longitudinally? | 25.5 long tons  | 50.2 long tons  | 165.3 long tons   | 330.2 long tons   |  |
| 4 | 3916 | B | If an inflatable liferaft inflates upside down, you can right it by _____.   | pushing up on one side  | standing on the CO2 bottle, holding the bottom straps, and throwing your weight backwards | getting at least three or four men to push down on the side containing the CO2 cylinder | doing nothing; it will right itself after the canopy supports inflate                 |  |
| 4 | 3917 | A | The DEEP DRILLER, at a draft of 60 feet, has 3,765 ft-tons of transverse moments. How much ballast should be transferred between tanks 1P and 1S to level the unit in list?            | 25.1 long tons  | 50.2 long tons  | 62.8 long tons  | 252.1 long tons   |  |
| 4 | 3918 | A | If your liferaft is to leeward of a fire on the water, you should FIRST _____.   | cut the line to the sea anchor  | paddle away from the fire   | splash water over the liferaft to cool it   | get out of the raft and swim to safety  |  |
| 4 | 3920 | D | Inflatable liferafts are less maneuverable than lifeboats due to their _____.  | shape   | shallow draft   | large sail area   | All of the above  |  |
| 4 | 3921 | A | The DEEP DRILLER, at a draft of 60 feet, has -3,600 ft-tons of transverse moments. How much ballast should be transferred between tanks 10P and 10S to level the unit in list?         | 25.1 long tons  | 50.2 long tons  | 62.8 long tons  | 252.1 long tons   |  |



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| 4 | 3922 | D | You have abandoned ship and are in an inflatable raft that has just inflated. You hear a continuous hissing coming from a fitting in a buoyancy tube. What is the cause of this? | The saltwater is activating the batteries of the marker lights on the canopy.        | The inflation pump is in automatic operation to keep the tubes fully inflated. | A deflation plug is partially open allowing the escape of CO2.      | Excess inflation pressure is bleeding off and should soon stop. |  |
| 4 | 3923 | C | Among the valves that must be opened on the DEEP DRILLER to pump bilge water out of the port pump room using the #1 bilge pump is valve _____.                                   | 28   | 36   | 41  | 42  |  |
| 4 | 3924 | A | If you are forced to abandon ship in a liferaft, your course of action should be to _____.   | remain in the immediate vicinity   | head for the nearest land  | head for the closest sea-lanes                                      | let the persons in the boat vote on what to do                  |  |
| 4 | 3925 | D | Among the valves that must be opened on the DEEP DRILLER to pump bilge water out of the port pump room using both bilge pumps is valve _____.                                    | 26   | 28   | 36  | 41  |  |
| 4 | 3926 | A | To keep injured survivors warm in the water after abandoning ship, they should _____.  | be placed in the middle of a small circle formed by the other survivors in the water | float on their backs with their arms extended for maximum exposure to the air  | remove their life preservers and hold on to the uninjured survivors | sip water at intervals of fifteen minutes                       |  |
| 4 | 3927 | D | What pump may be used to supplement the bilge pump on the DEEP DRILLER?  | #1 Ballast   | #2 Ballast   | Salt-Water Service  | Drill water   |  |
| 4 | 3928 | A | Immediately after abandoning a vessel, lookouts should be posted aboard liferafts to look for _____.   | survivors in the water   | food and water   | land  | bad weather   |  |
| 4 | 3929 | D | What is one of the FIRST things you would do on boarding an inflatable liferaft?   | Open equipment pack.   | Post a lookout.  | Issue anti-seasickness medicine.                                    | Pick up other survivors.  |  |
| 4 | 3930 | D | You have abandoned your vessel. You are in a liferaft and have cleared away from your vessel. One of your FIRST actions should be to _____.                                      | take measures to maintain morale   | prepare and use radio equipment  | identify the person in charge of liferaft                           | search for survivors  |  |
| 4 | 3931 | C | Aboard the DEEP DRILLER, to use the drill water pump to supplement the bilge pumps, it is necessary to open valves 26 and _____.   | 41   | 29   | 28  | 25  |  |
| 4 | 3932 | D | You have hand launched an inflatable liferaft. What should be one of your FIRST actions after all persons have boarded the liferaft?   | Open the equipment pack.   | Inflate the liferaft floor.  | Decide on food and water rations.                                   | Cut the sea painter and clear the vessel.                       |  |

|   |      |   |  |  |                                       |  |  |         |
|---|------|---|--|--|---------------------------------------|--|--|---------|
| 4 | 3933 | C | On the DEEP DRILLER, the drill water pump may be used to supplement the bilge pumps. Its normal pumping rate is _____.                                     | 250 gallons per minute                               | 350 gallons per minute                | 500 gallons per minute                   | 700 gallons per minute                           |         |
| 4 | 3934 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load. | 228.8 ft   | 238.3 ft                              | 252.4 ft                                 | 266.5 ft   | ST-0150 |
| 4 | 3935 | D | To pump bilge water out of the port pump room on the DEEP DRILLER, using the #2 bilge pump, open port-side valve _____.                                    | 28   | 36                                    | 41                                       | 42   |         |
| 4 | 3936 | C | After abandoning ship which action should be taken IMMEDIATELY upon entering a liferaft?   | Open equipment pack.                                 | Issue anti-seasickness medicine.      | Get clear of the ship.                   | Dry the liferaft floor and inflate.              |         |
| 4 | 3937 | C | On the DEEP DRILLER, to pump bilge water out of the starboard pump room using both bilge pumps, it is necessary to open valves _____.                      | 41 and 42  | 39 and 40                             | 39, 40, 41, and 42                       | 39, 40, 41, 42, 26, and 28                       |         |
| 4 | 3938 | A | You have abandoned ship in rough weather. After picking up other survivors in your liferaft, what should you do next?                                      | Close up the entrances.                              | Top up the buoyancy tubes.            | Prepare for the arrival of rescue units. | Decide on food and water rations.                |         |
| 4 | 3939 | A | You board an inflatable liferaft that has been hand launched from a sinking vessel. What should you do FIRST after everyone is onboard the liferaft?       | Cut the painter.                                     | Operate the radio equipment.          | Open the equipment pack.                 | Ventilate the liferaft of CO2.                   |         |
| 4 | 3940 | C | If you must swim through an oil fire, you should NOT _____.  | wear as much clothing as possible                    | enter the water feet first            | swim with the wind                       | cover eyes with one hand when entering the water |         |
| 4 | 3941 | A | Aboard the DEEP DRILLER, the drill water pump may be used to provide drill water to the deck and _____.  | supplement the bilge pumps                           | provide saltwater service to the deck | emergency fuel-oil recovery              | supplement the ballast pumps                     |         |
| 4 | 3942 | D | You have abandoned ship in tropical waters. Which procedure(s) should be used during a prolonged period in a raft?   | Wet clothes during the day to decrease perspiration. | Get plenty of rest.                   | Keep the entrance curtains open.         | All of the above                                 |         |
| 4 | 3943 | B | On the DEEP DRILLER, to use the drill water pump to supplement the bilge pumps, it is necessary to open valves 28 and _____.                               | 25   | 26                                    | 29                                       | 48   |         |
| 4 | 3944 | D | What is the most vulnerable part of the fire main system?  | The fire pump  | Exposed hard piping                   | The hydrant valve                        | The fire hose                                    |         |
| 4 | 3945 | A | Aboard the DEEP DRILLER, the bilge pumps take suction from the pump rooms, cofferdam, void area, access trunk, and _____.                                  | center column chain lockers                          | backup drill water tank               | primary salt-water service tank          | forward and after column chain lockers           |         |

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| 4 | 3946 | B | Fusible-link fire dampers are operated by _____.  | a mechanical arm outside the vent duct  | the heat of a fire melting the link   | electrical controls on the bridge   | a break-glass and pull-cable system   |  |
| 4 | 3947 | B | The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway? | They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire. | They may be kept open if they can be automatically closed from the bridge.      | They may be kept open if the ventilation or air conditioning system is shut down. | They are to be kept closed at all times.  |  |
| 4 | 3948 | C | While adrift in an inflatable liferaft in hot, tropical weather _____.  | the canopy should be deflated so that it will not block cooling breezes   | the pressure valve may be periodically opened to prevent excessive air pressure | deflating the floor panels may help to cool personnel                             | the entrance curtains should never be opened  |  |
| 4 | 3949 | B | When should you first have any food or water after boarding a lifeboat or liferaft?   | After 12 hours  | After 24 hours  | Within 48 hours   | Some food and water should be consumed immediately and then not until 48 hours later      |  |
| 4 | 3950 | A | You are picking up a conscious person that has fallen overboard. Recovery is easier if you approach with the _____.   | victim to leeward   | victim to windward  | wind on your port side  | wind on your starboard side   |  |
| 4 | 3951 | A | All personnel on board a vessel should be familiar with the rescue boat's _____.  | boarding and operating procedure  | maintenance schedules   | navigational systems  | fuel consumption rates  |  |
| 4 | 3952 | D | If an inflatable liferaft is overturned, it may be righted by _____.  | filling the stabilizers on one side with water  | releasing the CO2 cylinder  | pushing up from under one end   | standing on the inflating cylinder and pulling on the straps on the underside of the raft |  |
| 4 | 3953 | D | To turn over a liferaft that is floating upside down, you should pull on the _____.   | canopy  | manropes  | sea painter   | righting lines  |  |
| 4 | 3954 | D | The float free link attached to a sea painter on an inflatable liferaft has a breaking strength of _____.   | 100-134 lbs for buoyant apparatus with a capacity of 10 persons or less   | 200-268 lbs for buoyant apparatus with a capacity of 11 to 20 persons           | 400-536 lbs for buoyant apparatus with a capacity of 21 persons or more           | All of the above  |  |
| 4 | 3955 | C | The person-in-charge shall insure that each rescue boat on an OSV is lowered to the water, launched and operated at least once every _____.   | week  | two months  | three months  | six months  |  |

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| 4 | 3956 | C | Your ship is sinking rapidly. A container containing an inflatable liferaft has bobbed to the surface upon functioning of the hydrostatic release. Which action should you take?  | Cut the painter line so it will not pull the liferaft container down.    | Swim away from the container so you will not be in danger as it goes down. | Take no action because the painter will cause the liferaft to inflate and open the container. | Manually open the container and inflate the liferaft with the hand pump.             |  |
| 4 | 3957 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the sounding level changed from 8 to 6 feet?  | 80.00 long tons  | 77.75 long tons  | 83.34 long tons   | 106.67 long tons   |  |
| 4 | 3958 | C | If there's a fire aboard your vessel, you should FIRST _____.   | notify the Coast Guard   | have passengers put on life preservers                                     | sound the alarm   | cut off air supply to the fire   |  |
| 4 | 3960 | B | A rigid lifesaving device designed to support survivors in the water is a _____.  | rigid liferaft   | life float   | inflatable liferaft   | survival capsule   |  |
| 4 | 3961 | B | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the change in vertical moments for Fresh Water if the entire contents of Drill Water Tank 5P are transferred to Drill Water Tank 5S? | 5,683 ft-tons  | 2,689 ft-tons  | 306 ft-tons   | 000 ft-tons  |  |
| 4 | 3962 | B | When should food or water be provided to survivors after boarding a liferaft?   | After 12 hours   | After 24 hours   | After 48 hours  | Some food and water should be consumed immediately and then not until 48 hours later |  |
| 4 | 3963 | C | Salt water ballast tank 2P on the DEEP DRILLER contains 5.0 feet of ballast. It is decided to fill the tank. What is the VCG of the added liquid?   | 7.5 feet   | 10.0 feet  | 12.5 feet   | 15.0 feet  |  |
| 4 | 3964 | B | Paints and solvents on a vessel should be _____.  | stored safely in a cool dark non-ventilated area until work is completed | resealed and returned to a well ventilated area after each use             | covered at all times to protect from ignition sources   | stored in a suitable gear locker   |  |
| 4 | 3965 | A | In the DEEP DRILLER, the transverse and longitudinal free surface moments for entry into the daily load form are obtained _____.  | from tank tables   | by multiplying displacement by the free surface correction                 | by dividing by displacement   | by dividing by the free surface correction   |  |
| 4 | 3967 | C | The sounding in tank 1P of the DEEP DRILLER is 7.58 feet. It is decided to fill tank 1P by flooding through the sea chest. What are the vertical moments for the added ballast?   | 6,899 ft-long tons   | 6,149 ft-long tons   | 5,908 ft-long tons  | 2,615 ft-long tons   |  |

|   |      |   |   |                          |                                     |  |  |        |
|---|------|---|---|--------------------------|-------------------------------------|--|--|--------|
| 4 | 3969 | D | The sea anchor shown as item number 18 will NOT _____.  | check the liferaft's way | keep the liferaft end on to the sea | reduce the possibility of capsizing or broaching | right the raft if it inflates inverted | D014SA |
| 4 | 3970 | C | In the illustration, the sea painter is number _____.   | 1                        | 12                                  | 16   | 18                                     | D014SA |
| 4 | 3971 | C | What weight is added when P-tank #4 in the DEEP DRILLER Sample Load Form #1 (Transit) is completely filled?   | 19.54 long tons          | 55.71 long tons                     | 75.25 long tons                                  | 94.79 long tons                        |        |
| 4 | 3972 | A | The external recognition light can be seen up to two miles and is shown as item number _____.   | 3                        | 5                                   | 8  | 23                                     | D014SA |
| 4 | 3973 | B | What are the additional vertical moments created when P-tank #4 in the DEEP DRILLER sample load form #1 (Transit) is completely filled?                                     | 2,252 foot-tons          | 9,413 foot-tons                     | 11,665 foot-tons                                 | 13,917 foot-tons                       |        |
| 4 | 3974 | D | In the illustration, the sea anchor is shown as item number _____.  | 2                        | 9                                   | 13   | 18                                     | D014SA |
| 4 | 3975 | B | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new uncorrected KG?                                  | 52.09 feet               | 52.20 feet                          | 53.23 feet                                       | 55.36 feet                             |        |
| 4 | 3976 | C | In the illustration, which item number correctly identifies the ballast bags?   | 2                        | 12                                  | 13   | 22                                     | D014SA |
| 4 | 3977 | C | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new longitudinal free surface correction?            | 1.63 feet                | 1.65 feet                           | 1.67 feet  | 1.69 feet                              |        |
| 4 | 3979 | A | In the illustration shown, where would you find the knife?  | 23                       | 21                                  | 8  | 4                                      | D014SA |
| 4 | 3981 | D | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new position of the longitudinal center of buoyancy? | 0.00 feet                | 1.69 feet                           | 2.25 feet  | 2.29 feet                              |        |
| 4 | 3982 | C | In the illustration shown, the external lifelines are shown as item number _____.   | 1                        | 8                                   | 12   | 16                                     | D014SA |
| 4 | 3983 | C | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new height of the longitudinal metacenter?           | 61.24 feet               | 61.22 feet                          | 61.20 feet                                       | 61.13 feet                             |        |

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|---|------|---|--|--|---|---|---|--------|
| 4 | 3984 | B | As shown in the illustration, item #8 would be a(n) _____.   | recognition light  | rain water catchment tube assembly                    | pressure relief valve   | floating sheath knife                               | D014SA |
| 4 | 3985 | A | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new location of the longitudinal center of gravity?   | 1.71 feet  | 1.94 feet   | 2.09 feet   | 2.23 feet   |        |
| 4 | 3986 | D | A fire is discovered in the bow of your vessel while making way. The wind is from ahead at 35 knots. You should _____.   | remain on course and hold speed                          | remain on course but slack the speed                  | change course to put the wind on either beam and increase speed | change course and put the stern to the wind         |        |
| 4 | 3987 | C | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What is the new longitudinal metacentric height?  | 5.02 feet  | 5.65 feet   | 7.33 feet   | 7.63 feet   |        |
| 4 | 3988 | A | In the illustration shown, the weak link is item number _____.   | 8  | 6   | 4   | 1   | D015SA |
| 4 | 3989 | C | Inflatable liferafts on vessels on an international voyage must be able to carry at least _____.   | 2 persons  | 4 persons   | 6 persons   | 8 persons   |        |
| 4 | 3990 | C | What is a FALSE statement concerning the line throwing appliance on a vessel?  | A drill on its use must be held once every three months. | The actual firing is at the discretion of the Master. | The auxiliary line must be of a light color.                    | The auxiliary line must be at least 1500 feet long. |        |
| 4 | 3991 | D | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse moments for the Stores & Supplies (Table 6) if paint weighing 3.48 tons is added to the paint locker?   | 592 foot-tons  | 296 foot-tons   | 148 foot-tons   | 000 foot-tons                                       |        |
| 4 | 3992 | C | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 3300 brake horsepower?   | 2  | 3   | 4   | 5   |        |
| 4 | 3993 | B | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal moments for the Stores & Supplies (Table 6) if paint weighing 3.48 tons is added to the paint locker? | 5,996 foot-tons  | 1,688 foot-tons                                       | 495 foot-tons   | 115 foot-tons                                       |        |
| 4 | 3994 | B | The color of the signal flare sent up by a submarine about to surface due to an emergency condition within the submarine is _____.   | green  | red   | white   | yellow  |        |

|   |      |   |   |  |                                   |  |  |         |
|---|------|---|---|--|-----------------------------------|--|--|---------|
| 4 | 3995 | A | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of vertical moments for the Stores & Supplies if paint weighing 3.48 tons is added to the paint locker?  | 13,346 foot-tons   | 5,054 foot-tons                   | 964 foot-tons  | 292 foot-tons  |         |
| 4 | 3996 | C | The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.85 feet  | 2.65 feet                         | 2.36 feet  | 2.15 feet  | ST-0151 |
| 4 | 3997 | A | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of vertical moments for Fuel Oil if the entire contents of Tank 4P are transferred to Tank 4S?   | 3,493 foot-tons  | 1,797 foot-tons                   | 1,748 foot-tons  | 100 foot-tons  |         |
| 4 | 3999 | D | Which item may be substituted for, in the fireman's outfit, on a cargo vessel?  | fire ax  | flashlight                        | rigid helmet   | flame safety lamp  |         |
| 4 | 4000 | D | On a rigid liferaft (SOLAS B pack) which is equipped with all of the required equipment you may NOT find a _____.   | bailer   | sponge                            | whistle  | fishing kit  |         |
| 4 | 4001 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal moments for Fuel Oil (Table 2) if the entire contents of Tank 4P are transferred to Tank 4S?   | 000 foot-tons  | 3,992 foot-tons                   | 7,984 foot-tons  | 15,968 foot-tons   |         |
| 4 | 4002 | B | A combustible gas indicator will NOT operate correctly when the _____.  | hydrocarbon content of the atmosphere is less than the U.E.L | atmosphere is deficient in oxygen | distance between the operator and the compartment to be tested is greater than 50 feet | All of the above   |         |
| 4 | 4003 | D | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse moments for Fuel Oil if the entire contents of Tank 4P are transferred to Tank 4S?   | 995 foot-tons  | 16,918 foot-tons                  | 17,713 foot-tons   | 34,381 foot-tons   |         |
| 4 | 4004 | B | To serve as a person in charge of transfer operations on board a self-propelled tank vessel, an individual must _____.  | hold a valid officer's license for inspected vessels         | hold a tankerman-PIC endorsement  | be 30 years old  | have a letter from the company stating his qualification |         |

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|---|------|---|---|-------------------------------------|--|--|--|---------|
| 4 | 4005 | B | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of transverse free surface moments for Fuel Oil (Table 2) if the entire contents of Tank #4P are transferred to Tank #4S?                                    | 0 foot-tons                         | 1,189 foot-tons                                    | 2,378 foot-tons  | 7,984 foot-tons                          |         |
| 4 | 4006 | D | The SS AMERICAN MARINER arrived in port with drafts of: FWD 18'-06", AFT 20'-10". Cargo was loaded and discharged as indicated. Use sheet 2 in the white pages of the Stability Data Reference Book to determine the final drafts.                            | FWD 18'-11", AFT 20'-02"            | FWD 19'-01", AFT 20'-00"                           | FWD 19'-03", AFT 19'-10"                               | FWD 19'-05", AFT 19'-08"                 | ST-0152 |
| 4 | 4007 | B | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of longitudinal free surface moments for Fuel Oil (Table 2) if the entire contents of Tank #4P are transferred to Tank #4S?                                  | 1,189 foot-tons                     | 2,835 foot-tons                                    | 5,378 foot-tons  | 5,670 foot-tons                          |         |
| 4 | 4008 | C | You are preparing to load fuel oil on a vessel of 300 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.  | are not obstructed by on-deck cargo | have a fire extinguisher within the immediate area | have containment capacity for at least one half barrel | are opened and the flame screen replaced |         |
| 4 | 4009 | C | You are preparing to load fuel oil on a vessel of 1,600 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.  | are not obstructed by on-deck cargo | have a fire extinguisher within the immediate area | have containment capacity for at least one barrel      | are opened and the flame screen replaced |         |
| 4 | 4010 | C | A ship that, at any time, operates seaward of the outermost boundary of the territorial sea is required to prepare, submit, and maintain a(n) _____.  | synthetic plastic discharge plan    | oil discharge plan                                 | shipboard oil pollution emergency plan                 | vapor recovery procedures plan           |         |
| 4 | 4011 | D | If you fail to notify the Coast Guard of an oil spill, you may be imprisoned up to _____.   | 1 year                              | 2 years  | 3 years  | 5 years                                  |         |
| 4 | 4012 | A | The Federal Water Pollution Control Act requires the person in charge of a vessel to immediately notify the Coast Guard as soon as he knows of any oil discharge. Failure to notify the Coast Guard can lead to a monetary fine and imprisonment up to _____. | 5 years                             | 3 years  | 2 years  | 1 years                                  |         |



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|---|------|---|--|--|---|--|---|--|
| 4 | 4013 | C | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the KG corrected for longitudinal free surface effects? | 53.78 feet   | 54.82 feet  | 55.47 feet   | 56.01 feet  |  |
| 4 | 4014 | D | Towing vessel fire protection regulations apply to vessels operated _____.   | for restricted service such as making up or breaking up larger tows                  | for assistance towing   | for pollution response   | on the Western Rivers                               |  |
| 4 | 4015 | B | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the KG corrected for transverse free surface effects?   | 53.78 feet   | 54.82 feet  | 55.47 feet   | 56.01 feet  |  |
| 4 | 4016 | D | Fire protection regulations apply to those towing vessels _____.   | used only for pollution response   | owned and operated by the US government                                 | used only within a barge fleeting area                                   | used only on inland waters                          |  |
| 4 | 4017 | B | Towing vessel fire protection regulations define a "fixed fire-extinguishing system" to include all of the following EXCEPT a _____.   | carbon-dioxide system  | halon system  | manually-operated clean-agent system                                     | manually-operated water-mist system                 |  |
| 4 | 4018 | C | Towing vessel fire protection regulations distinguish between "new" and "existing" towing vessels. A "new" towing vessel is one that was _____.  | built within the last three years  | contracted for on or after August 27, 2002                              | contracted for on or after August 27, 2003                               | not previously owned                                |  |
| 4 | 4019 | D | The regulations for a general alarm system on a towing vessel require all of the following EXCEPT that it _____.   | be capable of notifying persons in any accommodation, work space and the engine room | have a contact maker at the operating station                           | have a flashing red light in areas that have high background noise       | be used instead of the public address system        |  |
| 4 | 4020 | D | The control panel of a fire detection system must have all of the following EXCEPT _____.  | a power-available light  | an audible alarm to notify the crew and identify the origin of the fire | a means to silence audible alarms while maintaining visible alarm lights | a way to bypass the entire panel if it malfunctions |  |
| 4 | 4021 | B | A towing vessel's fire detection system may be certified to comply with the Coast Guard's towing vessel fire protection regulations by _____.  | a Coast Guard inspector  | a registered professional engineer                                      | the owner or Master of the vessel  | a licensed electrician                              |  |

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| 4 | 4022 | A | Which towing vessels are NOT required to have an internal communication system between the engine room and the operating station?  | Twin-screw vessels that have operating station control for both engines  | Vessels on limited routes   | Fleet boats making or breaking tows   | Vessels serving a single company or facility           |  |
| 4 | 4023 | D | Which devices may be used as part of an internal communication system on a towing vessel?  | Sound-powered telephones   | Portable radios   | Either fixed or portable equipment  | All of the above                                       |  |
| 4 | 4024 | D | In the towing vessel fire protection regulations, all of the following are fire detection requirements, EXCEPT that _____.   | the control panel must have labels for all switches and indicator lights | the detection system must be powered from two sources, with the switchover being either manual or automatic | there must be a circuit-fault detector test-switch in the control panel           | none of the above                                      |  |
| 4 | 4026 | D | When do the towing vessel fire protection regulations allow a towing vessel to carry portable fuel systems on board?   | When used for outboard engines   | When permanently attached to portable equipment such as bilge and fire pumps                                | If the portable tanks used for portable equipment meet published safety standards | All of the above                                       |  |
| 4 | 4027 | A | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the metacentric height corrected for longitudinal free surface effects? | 5.66 feet  | 6.31 feet   | 7.37 feet   | 55.47 feet   |  |
| 4 | 4028 | C | Fire protection regulations for towing vessels allow all of these types of fuel piping, EXCEPT _____.  | steel  | aluminum in an aluminum-hulled vessel   | schedule 80 fire resistant plastic pipe   | nickel-copper, copper-nickel or annealed copper        |  |
| 4 | 4029 | D | Fire protection regulations for towing vessels allow you to use a nonmetallic flexible hose in fuel line installations under all of the following conditions EXCEPT when _____.  | used in lengths of not more than 30 inches                               | reinforced with wire braid  | visible and easily accessible   | fitted with Coast Guard approved garden hose fittings  |  |
| 4 | 4030 | A | Fire protection regulations for towing vessels require any fuel line subject to internal head pressure from fuel in the tank to _____.   | be fitted with a positive fuel shut-off valve located at the tank        | have a shut-off valve at the top of the tank  | have a gate valve easily accessible in the space where the tank is located        | have a drain cock at the lowest point in the fuel line |  |
| 4 | 4031 | C | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, and FSMT = 18,732 foot-long tons. What is the metacentric height corrected for transverse free surface effects?  | 5.66 feet  | 7.37 feet   | 8.02 feet   | 54.82 feet   |  |

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|---|------|---|---|--|---|--|---|--|
| 4 | 4032 | D | Towing vessel fire protection regulations require that all fuel tank vent pipes comply with all of the following provisions EXCEPT that the vent _____.   | connects to the highest point of the tank  | system discharges on a weather deck through a U-shaped 180 degree pipe bend | be fitted with a 30-by-30 corrosion resistant flame screen   | must have a positive-acting shut-off valve to prevent water from entering the tank in heavy weather |  |
| 4 | 4033 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling) discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KG?   | 1.18 feet  | 51.80 feet  | 52.61 feet   | 55.79 feet  |  |
| 4 | 4034 | D | When a standard in the fire protection regulations for towing vessels is "incorporated by reference," it means that the _____.  | Coast Guard accepts a commercial or military standard as part of a specific regulation | standard is readily available to the public                                 | standard, and where it can be obtained or referred to, are listed in the Code of Federal Regulations | All of the above  |  |
| 4 | 4035 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KGL? | 52.60 feet   | 53.65 feet  | 54.32 feet   | 54.92 feet  |  |
| 4 | 4036 | B | Fire protection regulations for towing vessels require that all crew members participate in drills and receive instruction at least once a month. Who is responsible for ensuring that this takes place?  | The Officer in Charge, Marine Inspection   | The Master, or person in charge of the vessel                               | The vessel's owner or manager  | The company's port captain or port engineer   |  |
| 4 | 4037 | B | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new KGT? | 52.60 feet   | 53.65 feet  | 54.31 feet   | 54.92 feet  |  |

|   |      |   |   |   |  |  |  |  |
|---|------|---|---|---|--|--|--|--|
| 4 | 4038 | A | Fire protection regulations for towing vessels require all crew members to know how to perform each of these tasks EXCEPT _____.  | start the mechanical ventilation system for the engine room | operate the fuel shut-off for the engine room                              | operate all fire extinguishing equipment aboard the vessel on board the vessel, including starting the fire pump | All of the above   |  |
| 4 | 4039 | B | The fire protection regulations for towing vessels require the crew to be trained for fire fighting with drills and safety orientations _____.  | only if the vessel is greater than 100 gross tons           | always, as stated in the regulations                                       | but, only applies to towing vessels constructed after August 27, 2003  | however, drills are not required for those holding a fire fighting certificate |  |
| 4 | 4040 | D | Fire protection regulations for towing vessels require training in all of the following, EXCEPT _____.  | putting on a fireman's outfit, if the vessel is so equipped | donning a self-contained breathing apparatus, if the vessel is so equipped | activating the general alarm and reporting inoperative alarm systems and fire-detection systems                  | refilling and servicing all expended fire extinguishing equipment              |  |
| 4 | 4041 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new TCG? | -0.26 foot  | -0.46 foot   | 0.46 foot  | 0.61 foot  |  |
| 4 | 4042 | B | How many B-II fire extinguishers must be in the machinery space of a 75-foot long fishing vessel propelled by engines with 1200 brake horsepower?   | 1   | 2  | 3  | 4  |  |
| 4 | 4043 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new GML? | 5.98 feet   | 6.48 feet  | 6.84 feet  | 7.11 feet  |  |
| 4 | 4044 | A | Convection spreads a fire by _____.   | heated gases flowing through ventilation systems            | the transfer of heat across an unobstructed space                          | burning liquids flowing into another space   | transmitting the heat of a fire through the ship's metal                       |  |

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| 4 | 4045 | D | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new GMT?              | 5.98 feet  | 6.84 feet   | 7.11 feet   | 9.24 feet   |  |
| 4 | 4046 | C | Fire protection regulations for towing vessels require that drills be conducted on board the vessel as if there were an actual emergency. Drills include all of the following, EXCEPT _____.   | testing all alarm and detection systems  | breaking out and using the vessel's emergency equipment                     | participation by selected crew members  | one person putting on protective clothing, if the vessel is so equipped |  |
| 4 | 4047 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the centerline. What is the improvement in KGT?  | 0.68 foot  | 0.99 foot   | 1.16 feet   | 2.07 feet   |  |
| 4 | 4048 | C | Fire protection and manning regulations for towing vessels state that the Master or person in charge must ensure that all crew members who have not participated in the drills or received the safety orientation _____.   | receive a safety orientation or view a videotape before the vessel gets underway | view a videotape on safety procedures within 48 hours of reporting for duty | receive a safety orientation within 24 hours of reporting for duty                      | none of the above   |  |
| 4 | 4049 | B | The owner or Master of a towing vessel shall ensure that all tests and inspections of gear take place and are logged _____.  | on each watch, immediately before being relieved                                 | before embarking on a voyage of more than 24 hours                          | daily, at 1200 local zone time  | weekly, before 0000 Sunday  |  |
| 4 | 4050 | A | The owner or Master of a towing vessel shall ensure that all tests and inspections of gear take place and are logged _____.  | when a new Master assumes command  | daily, at 0800 local zone time  | weekly, before 2400 Saturday  | immediately after assuming the watch                                    |  |
| 4 | 4051 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the resulting list angle? | 2.11 degrees to port   | 1.43 degrees to starboard   | 2.87 degrees to starboard   | 3.02 degrees to starboard   |  |
| 4 | 4052 | B | The test of a towing vessel's steering gear control system includes each item EXCEPT _____.  | a test from the alternative power supply, if installed                           | timing the movement of the rudder from hard over to hard over               | verification that the rudder angle indicator shows the actual position of the rudder(s) | visual inspection of the steering linkage                               |  |

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| 4 | 4053 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the resulting trim angle? | 3.49 degrees to the stern                                   | 4.69 degrees to the stern                             | 5.18 degrees to the stern  | 5.68 degrees to the stern                              |  |
| 4 | 4054 | D | Which navigational equipment is required to be tested and logged before a towing vessel embarks on a voyage of more than 24 hours?   | Compass and/or swing meter                                  | Radar(s) and VHF radio(s)                             | LORAN-C and/or GPS receiver(s)   | All required navigational equipment, without exception |  |
| 4 | 4055 | D | In the DEEP DRILLER, VCG is obtained from the sum of the vertical moments by _____.  | adding displacement   | subtracting displacement                              | multiplying by displacement  | dividing by displacement                               |  |
| 4 | 4056 | D | Which installed equipment must be tested and logged when a new Master assumes command?   | Internal communications, including sound-powered telephones | Navigational lights and search lights                 | Vessel control alarms  | All of the above must be tested                        |  |
| 4 | 4057 | D | In the DEEP DRILLER, LCG is obtained from the sum of the longitudinal moments by _____.  | adding the free surface correction                          | subtracting the free surface correction               | multiplying by displacement  | dividing by displacement                               |  |
| 4 | 4058 | C | When the owner or Master inspects his/her towing vessel before embarking on a voyage of more than 24 hours, he/she must check all terminal gear EXCEPT _____.  | the connection of the bridle and towing pendant             | chafing gear  | quick release towing hook and control system, to see that it operates properly               | the winch brake, if installed                          |  |
| 4 | 4059 | D | What must the owner or Master do if any of the towing vessel's required navigational safety equipment fails during a voyage?   | Repair it at the earliest practicable time                  | Enter its failure in the log or other on board record | Consider the state of the equipment in deciding whether it is safe for the vessel to proceed | All of the above                                       |  |
| 4 | 4060 | B | After an item of required safety equipment on a towing vessel fails, the owner or Master must consider all of these factors before continuing the voyage, EXCEPT the _____.  | weather conditions, including visibility                    | estimated time of arrival promised to the customer    | safety of the vessel, considering the other traffic in the area                              | dictates of good seamanship                            |  |
| 4 | 4061 | D | In the DEEP DRILLER, TCG is obtained from the sum of the transverse moments by _____.  | adding the free surface correction                          | subtracting the free surface correction               | multiplying by displacement  | dividing by displacement                               |  |

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| 4 | 4062 | C | The owner or Master of a towing vessel that is operating within a Vessel Traffic Service (VTS) area must report all of the following to VTS as soon as practicable EXCEPT _____.   | any malfunction of propulsion machinery, steering gear, radar, gyrocompass or depth-sounder, if installed | shortage of personnel, lack of charts, maps or other required publications                        | the type of license he/she holds and its serial number | any characteristics of the vessel that affect its maneuverability |        |
| 4 | 4063 | D | In the DEEP DRILLER, the longitudinal free surface correction (FSCL) is obtained from the total of the longitudinal free surface moments (FSML) by _____.  | adding the LCG  | subtracting the LCG   | multiplying by displacement                            | dividing by displacement  |        |
| 4 | 4064 | A | If you are the Master of a towing vessel whose only working radar no longer functions, what must you do?   | Notify the Captain of the Port (COTP) if you cannot repair it within 96 hours.                            | Notify the Officer in Charge of Marine Inspection (OCMI) if you cannot repair it within 48 hours. | Moor the vessel until it is repaired.                  | Anchor the vessel until it is repaired.                           |        |
| 4 | 4065 | D | In the DEEP DRILLER, the transverse free surface correction (FSCT) is obtained from the total of transverse free surface moments (FSMT) by _____.  | adding the TCG  | subtracting the TCG   | multiplying by displacement                            | dividing by displacement  |        |
| 4 | 4066 | B | The most important concern in treating a person with extensive burns is _____.   | reducing disfigurement  | preventing infection  | cooling with ice water                                 | reducing swelling   |        |
| 4 | 4067 | D | The DEEP DRILLER is operating as shown in Sample Load Form #4 (Drilling). Assume ballast added or discharged to remain at a constant draft is at a VCG of 10 feet. How much non-liquid load would have to be removed from an average height of 130 feet above the keel to meet the maximum allowable KG at a draft of 60 feet for winds greater than 70 knots? | 373 long tons   | 457 long tons   | 484 long tons  | 524 long tons   |        |
| 4 | 4068 | D | On board an OSV, the key to the most rapid and effective response to a man overboard situation is _____.   | switching to hydraulic steering   | a dedicated crew  | good equipment   | good communication  |        |
| 4 | 4069 | D | In the illustration, the sea anchor is number _____.   | 1   | 12  | 14   | 18  | D014SA |
| 4 | 4070 | A | Motor-propelled lifeboats are required to be fitted with which of the following?   | Compartments for the storage of canned drinking water   | Ballast tanks to prevent the boat from capsizing  | An air starter on the diesel engine                    | Auxiliary mechanical propulsion (Fleming gear)                    |        |

|   |      |   |   |                                  |  |  |                                   |         |
|---|------|---|---|----------------------------------|--|--|-----------------------------------|---------|
| 4 | 4071 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new LM (longitudinal moments) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?   | 5,191 ft-tons                    | 13,414 ft-tons                                     | 31,992 ft-tons   | 69,175 ft-tons                    |         |
| 4 | 4073 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new TM (transverse moments) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?   | -3,436 ft-tons                   | 3,446 ft-tons                                      | 3,594 ft-tons  | 22,682 ft-tons                    |         |
| 4 | 4074 | C | The SS AMERICAN MARINER has the following drafts: FWD 08'-11.5", AFT 15'-11.5". Upon completion of loading and bunkering the items listed will be on board. Use the white pages of The Stability Data Reference Book to determine the minimum GM required to meet a one compartment standard. | 2.20 feet                        | 2.00 feet  | 1.80 feet  | 1.65 feet                         | ST-0153 |
| 4 | 4075 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What are the new vertical moments if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?  | 12,662 ft-tons                   | 794,346 ft-tons                                    | 795,025 ft-tons  | 795,704 ft-tons                   |         |
| 4 | 4077 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new longitudinal free surface correction (FSCL) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?  | 1.06 feet                        | 1.09 feet  | 3.30 feet  | 3.38 feet                         |         |
| 4 | 4078 | D | When shifting to a course where the wind comes more from astern, easing the mainsheet will _____.   | bring the boom more fore and aft | decrease the force needed to haul on the mainsheet | bring the head of the sail down from the top of the mast | allow the sail to catch more wind |         |
| 4 | 4079 | A | Your cargo vessel's Certification of Inspection expires 30 April 2002. One of your inflatable liferafts was last serviced in January 2002. The raft must be reinspected no later than _____.  | January 2003                     | June 2003  | April 2004   | January 2007                      |         |
| 4 | 4080 | D | On a vessel of 12,500 tons displacement, compute the reduction in metacentric height due to free surface in a hold having free water on the tank top. The hold is 35 feet long and 50 feet wide. The reduction in metacentric height is _____.  | .14 ft                           | .45 ft   | .55 ft   | .83 ft                            |         |



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|---|------|---|---|--|--|---|------------------|--|
| 4 | 4081 | A | Visual inspections of survival craft on offshore drilling units, to ensure operational readiness, must be conducted at least once a _____.  | week   | month  | quarter   | year             |  |
| 4 | 4082 | A | A towing vessel is NOT required to be fitted with radar if it is _____.   | used solely for assistance towing                                      | under 65 feet in length                                    | used exclusively on the Western Rivers                            | pushing ahead    |  |
| 4 | 4083 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new height of the center of gravity corrected for longitudinal free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?          | 67.04 feet   | 68.02 feet   | 68.72 feet  | 69.21 feet       |  |
| 4 | 4084 | B | A towing vessel is NOT required to be fitted with radar if it is _____.   | used occasionally to assist vessels in distress                        | used solely for pollution response                         | less than 49 feet in length                                       | towing alongside |  |
| 4 | 4085 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new height of the center of gravity corrected for transverse free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?            | 65.95 feet   | 66.85 feet   | 67.66 feet  | 68.59 feet       |  |
| 4 | 4086 | C | What signal flag is the "Pilot Flag" ("I have a pilot on board")?   | "P"  | "C"  | "H"   | "Z"              |  |
| 4 | 4087 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (transit). What is the new metacentric height corrected for transverse free surface effects if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged? (Use KMT = 375.38 feet) | 375.38 feet  | 345.23 feet  | 319.66 feet   | 306.79 feet      |  |
| 4 | 4088 | D | Which towing vessel(s) is/are exempt from carrying radar?   | A vessel used solely in a limited area, such as a barge fleeting area. | A vessel exempted, in writing, by the Captain of the Port. | A vessel used solely for pollution response or assistance towing. | All of the above |  |
| 4 | 4089 | B | Which piece of navigational safety equipment is NOT required on towing vessels over 12 meters in length, provided that the vessel remains within the navigable waters of the U.S.?  | VHF-FM radio(s)  | LORAN-C or GPS receiver                                    | Charts or maps of the areas to be transited                       | Searchlight      |  |
| 4 | 4090 | B | Which instrument may a towing vessel, engaged in towing exclusively on the Western Rivers, use in place of a magnetic compass?  | Gyrocompass  | Illuminated Swing Meter                                    | LORAN-C Receiver  | GPS Receiver     |  |

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|---|------|---|--|--|---|---|------------------------------|---------|
| 4 | 4091 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new metacentric height corrected for longitudinal free surface effects if the entire contents of salt water ballast tanks 1P and 1S are discharged? (Use KML = 348.58) | 261.11 feet  | 279.37 feet   | 283.37 feet   | 301.12 feet                  |         |
| 4 | 4092 | C | On which route is a towing vessel over 39.4 feet in length NOT required to carry an echo-sounding device?  | Great Lakes  | Inland Waters, other than the Western Rivers  | Western Rivers  | Coastwise Routes             |         |
| 4 | 4093 | D | Towing vessels of more than 39.4 feet in length must carry charts or maps _____.   | of the area to be navigated  | with enough detail to make safe navigation possible                                   | of the current edition or currently corrected edition                                     | All of the above             |         |
| 4 | 4094 | B | The SS AMERICAN MARINER arrived in port with drafts of: FWD 19'-10.5", AFT 22'-11.6". Cargo was loaded and discharged as shown. Use sheet 2 in the white pages of The Stability Data Reference Book to determine the final drafts.                           | FWD 20'-01.4", AFT 23'-00.6"   | FWD 19'-07.6", AFT 22'-10.4"  | FWD 19'-09.3", AFT 22'-08.7"  | FWD 19'-11.7", AFT 23'-02.5" | ST-0154 |
| 4 | 4095 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballast to Survival). What is the new longitudinal location of the center of buoyancy if all the bulk materials are discharged?  | 2.34 feet  | 2.48 feet   | 2.50 feet   | 2.53 feet                    |         |
| 4 | 4096 | D | Which statement(s) is/are TRUE concerning radio equipment on towing vessels of 26 feet or more in length?  | The vessel must have a ship-radio-station license issued by the FCC. | Each radio operator must hold an FCC-issued restricted operator's license, or higher. | Maintain a continuous listening watch on VHF channel 16 and the bridge-to-bridge channel. | All of the above.            |         |
| 4 | 4097 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new height of the longitudinal metacenter if all the bulk materials are discharged?   | 61.34 feet   | 62.13 feet  | 62.35 feet  | 64.00 feet                   |         |
| 4 | 4098 | D | Which publication(s) must a towing vessel of 12 meters or more in length carry when operating on US waters other than the Western Rivers?  | US Coast Pilot(s)  | Tide Tables and Tidal Current Tables  | Notice to Mariners  | All of the above             |         |
| 4 | 4101 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new height of the transverse metacenter if all the bulk materials are discharged?   | 63.14 feet   | 64.05 feet  | 64.30 feet  | 66.09 feet                   |         |

|   |      |   |   |                     |                     |  |   |  |
|---|------|---|---|---------------------|---------------------|--|---|--|
| 4 | 4102 | A | The center of the underwater volume of a floating vessel is the _____.  | center of buoyancy  | center of flotation | uncorrected height of the center of gravity of the vessel                | center of gravity of the vessel corrected for free surface effects        |  |
| 4 | 4103 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in TCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?  | 0.01 foot starboard | 0.18 foot starboard | 0.27 foot starboard  | 0.39 foot starboard   |  |
| 4 | 4104 | B | The inspection of small passenger vessels of 60 feet in length carrying more than twelve persons on an international voyage is required by the Coast Guard _____. (small passenger vessel regulations)                          | once every 6 months | once every year     | once every 2 years with a minimum of one reinspection during that period | once every 3 years with a minimum of two reinspections during that period |  |
| 4 | 4105 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in LCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?  | 0.06 foot aft       | 0.14 foot aft       | 0.27 foot aft  | 0.40 foot aft   |  |
| 4 | 4106 | D | In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.   | conduction          | ventilation         | radiation  | convection  |  |
| 4 | 4107 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the VCG of the added liquid if 100.76 long tons of ballast are added to Ballast Tank #8S?                                      | 1.35 feet           | 6.95 feet           | 8.30 feet  | 15.26 feet  |  |
| 4 | 4108 | D | A Certificate of Inspection for vessels of less than 100 gross tons carrying more than twelve passengers on an international voyage will be issued for a period of _____. (small passenger vessel regulations)                  | four years          | three years         | two years  | one year  |  |
| 4 | 4109 | D | As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer? | Subchapter B        | Subchapter D        | Subchapter F   | Subchapter T  |  |

|   |      |   |  |  |  |   |   |         |
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| 4 | 4110 | B | As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer?  | Subchapter W   | Subchapter T   | Subchapter I  | Subchapter E                                |         |
| 4 | 4111 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the metacentric height corrected for longitudinal free surface effects if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials? | 6.46 feet  | 7.09 feet  | 7.72 feet   | 8.39 feet                                   |         |
| 4 | 4112 | D | A fire is discovered in the forepeak of a vessel at sea. The wind is from ahead at 35 knots. You should _____.   | remain on course and hold speed  | remain on course but slack the speed   | change course to put the wind on either beam and increase speed | change course and put the stern to the wind |         |
| 4 | 4113 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the metacentric height corrected for transverse free surface effects if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?   | 10.42 feet   | 10.87 feet   | 11.50 feet  | 12.13 feet                                  |         |
| 4 | 4114 | B | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.   | 229.8 ft   | 236.7 ft   | 244.6 ft  | 251.5 ft                                    | ST-0155 |
| 4 | 4115 | D | The inspection of a 50 ft. vessel of 65 gross tons carrying more than twelve passengers on an international voyage is required by the Coast Guard once in every _____. (small passenger vessel regulations)  | four years with a minimum of three reinspections during the four year period | three years with a minimum of two reinspections during the three year period | two years   | year  |         |
| 4 | 4116 | C | As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations will you find the answer?   | Subchapter D   | Subchapter G   | Subchapter T  | Subchapter U                                |         |
| 4 | 4117 | A | As Master of an inspected small passenger vessel, you have a question regarding a proposed modification to a watertight bulkhead. In which subchapter of title 46 of the Code of Federal Regulations would you find the answer?  | Subchapter T   | Subchapter Q   | Subchapter F  | Subchapter C                                |         |

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| 4 | 4119 | C | A large fire, involving class "A" material, has developed in the ship's galley. In combating this fire, you should _____.   | keep the galley door closed until all the class "A" material has been consumed by the fire | have a hose team cool the galley door, then open the door and extinguish the fire using a type B-II extinguisher | cool adjoining horizontal and vertical surfaces before opening the galley door | advance the hose team into the galley without any preparatory action |  |
| 4 | 4120 | B | Which of the following would be of immediate concern after discovering a large fire in the ship's galley?   | An adjacent storeroom, containing spare parts  | A storeroom directly above, containing combustible fluids  | An adjacent storeroom, containing mattresses and linen                         | An adjacent storeroom, marked "Stewards Stores"                      |  |
| 4 | 4121 | D | The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moments 51,466 foot-tons, and total transverse moments -10,000 foot-tons. What is the weight of the missing load?                | 220.7 long tons  | 235.3 long tons  | 253.7 long tons  | 272.7 long tons  |  |
| 4 | 4122 | B | Under normal firefighting conditions, approximately how far could a straight stream of water reach when the hose pressure is 100 PSI?   | 50 feet  | 100 feet   | 150 feet   | 200 feet   |  |
| 4 | 4123 | D | The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moments 51,466 foot-tons, and total transverse moments -10,000 foot-tons. What is the longitudinal location of the missing load? | 40.45 feet   | 0.62 feet  | -0.61 feet   | -40.57 feet  |  |
| 4 | 4124 | A | Approximately how far could a straight stream of water reach if the fire hose pressure is reduced to 60 PSI?  | 50 feet  | 100 feet   | 150 feet   | 200 feet   |  |
| 4 | 4125 | D | The DEEP DRILLER is observed to be level at a draft of 60.0 feet. At the same time, the calculated load form shows the displacement to be 17,845 long tons, total longitudinal moment 51,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the transverse location of the missing load?    | 36.67 feet   | 0.56 foot  | -0.55 foot   | -36.67 feet  |  |

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| 4 | 4126 | D | Using sheet 25 in the Guidance Manual for Loading M.V. Grand Haven, determine the amount of ballast required in tank No. 5 (P & S) to maintain drafts of 17'-00" forward and 22'-06" aft for a vessel loaded with grain which has a test weight of 33 lbs. | 1010 tons each                                 | 1025 tons each   | 1045 tons each                                | 1070 tons each   |  |
| 4 | 4127 | B | While loaded as shown in the DEEP DRILLER Sample Load Form #3 (Preparing to Drill), all of the casing is discharged. What is the change in LCG?  | 0.45 foot                                      | -0.45 foot   | -1.78 feet                                    | -2.68 feet   |  |
| 4 | 4129 | C | Under normal operating conditions, the rudder is hydraulically locked unless _____.  | the manual trick wheel is engaged for steering | the variable stroke pump is off stroke                 | a rudder order is given by the control system | an electric power system failure occurs at the steering gear |  |
| 4 | 4131 | D | While loaded as shown in the DEEP DRILLER Sample Load Form #4 (Drilling), a severe storm threatens. What is the improvement in KGL if all the mud is dumped?   | 4.59 feet                                      | 3.27 feet  | 2.37 feet                                     | 1.60 feet  |  |
| 4 | 4132 | D | When the helm is turned on the navigation bridge, which of the listed actions will be the FIRST response in the steering room on a ship equipped with an electro-hydraulic steering gear?  | The pumps go to full stroke.                   | The six-way valve aligns itself with the running pump. | Both port and starboard cables are energized. | The synchronous receiver turns, duplicating the helm motion. |  |
| 4 | 4133 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). According to the deck load graph, how much additional deck load could be added to the unit?   | 526.87 long tons                               | 276.87 long tons                                       | 241.50 long tons                              | 189.51 long tons   |  |
| 4 | 4134 | B | Dual electro-hydraulic steering units usually operate _____.   | with both pumps on line at the same time       | with one pump on standby                               | with the follow-up gear disconnected          | only when the rudder is moved amidships                      |  |
| 4 | 4135 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). According to the deck load graph, how much additional deck load could be added on the unit?   | 561.87 long tons                               | 461.87 long tons                                       | 281.34 long tons                              | 192.59 long tons   |  |
| 4 | 4136 | C | If one hydraulic pump of an electro-hydraulic steering unit fails, the vessel's steering can be initially and best maintained by using the _____.  | trick wheel                                    | accumulator  | standby pump                                  | telemotor  |  |

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| 4 | 4137 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). According to the deck load graph, how much additional deck load could be added on the unit?   | 435.59 long tons   | 321.59 long tons   | 281.59 long tons   | 192.59 long tons   |  |
| 4 | 4138 | B | Multiple fire pumps may be used for other purposes provided that one pump is _____.   | on line to the fire main   | kept available for use on the fire main at all times                                   | capable of being connected to the fire main  | rated at or above 125 psi  |  |
| 4 | 4139 | D | Rotation of the steering wheel on the navigation bridge initiates oil pressure being applied to the steering gear rams by _____.  | regulating the oil flow with the six-way valve                               | moving the automatic differential valve  | moving the follow up indicator which regulates the six-way valve                                 | varying the angle of a tilting box or eccentricity of a floating ring                  |  |
| 4 | 4140 | B | In an electro-hydraulic steering system, rudder movement is maintained in close synchronization with the steering wheel position by means of the _____.   | trick wheel  | follow-up control  | six-way valve  | Rapson slide   |  |
| 4 | 4141 | B | How much additional solid weight could be loaded at a VCG of 189.7 feet on the DEEP DRILLER while loaded as shown in the Sample Load Form #4 (Drilling)? Assume ballast added or discharged to maintain draft is done so at 15 feet above the baseline. | 279.2 long tons  | 314.2 long tons  | 404.2 long tons  | 461.9 long tons  |  |
| 4 | 4142 | A | You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.   | change course and put the stern to the wind                                  | change course to put the wind on either beam and increase speed                        | remain on course and hold speed  | remain on course but decrease speed  |  |
| 4 | 4143 | A | While loaded as shown in the Sample Load Form #4 (Drilling), all of the liquid mud is dumped. What would be the new draft?  | 56.69 feet   | 58.14 feet   | 59.14 feet   | 63.31 feet   |  |
| 4 | 4144 | D | Which of the following statements is FALSE concerning the proper procedure in handling a fire hose?   | A 1½ inch hose should be deployed with a minimum of a nozzleman and hoseman. | The nozzleman should always hold the nozzle with one hand on top, to prevent kickback. | Back-up hosemen should be positioned wherever the hose makes a significant turn.                 | The fire hose should be partially charged before deploying it from the fire station.   |  |
| 4 | 4145 | C | Which of the following statements is FALSE concerning the proper procedure in handling a fire hose?   | A 1½ inch hose should be deployed with a minimum of a nozzleman and hoseman. | Back-up hosemen should be placed wherever the hose makes a significant turn.           | Use of a spanner wrench when attaching nozzles or additional lengths of hose is always critical. | The nozzleman should always hold the nozzle with one hand on top, to prevent kickback. |  |

|   |      |   |  |   |  |   |  |  |
|---|------|---|--|---|--|---|--|--|
| 4 | 4146 | B | The follow-up gear on an electro-hydraulic steering gear _____.  | relieves excessive fluid pressure   | takes the pump off stroke when the desired rudder angle is attained  | synchronizes wheel position with the rudder position  | returns the rudder to mid-position when the wheel is released  |  |
| 4 | 4147 | C | According to Coast Guard Regulations (46 CFR), which of the following statements is correct regarding the steering gear on a vessel contracted for after June 9, 1995?     | Hydraulic structural rudder stops are mandatory.  | On hydraulic type steering gears, a suitable arrangement of check valves in the main piping system may be considered as a means of steadying the rudder. | A separate auxiliary means of steering is not required where the main gear is of the dual power hydraulic type, having two independent pumps and connections. | All of the above.  |  |
| 4 | 4148 | A | The action necessary to transfer the steering control from the wheelhouse to local control in order to use the steering gear room trick wheel, is to _____.                | align the trick wheel to the rudder angle position  | set the six-way control valve in the trick wheel position  | open the power transfer switch before engaging the trick wheel  | always place the rudder in the midship position to engage the trick wheel                              |  |
| 4 | 4149 | A | Rudder position is shown on the bridge by the _____.   | rudder angle indicator  | follow-up gear   | telemotor position  | Rapson slide indicator   |  |
| 4 | 4150 | A | In an emergency, the electro-hydraulic steering units can be directly controlled by the _____.   | trick wheel   | rapson slide   | follow-up gear  | receiver unit  |  |
| 4 | 4151 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #1 (see table 8) is dumped, what would be the new draft? | 60 feet 9.6 inches  | 59 feet 9.3 inches   | 59 feet 2.7 inches  | 56 feet 10.9 inches  |  |
| 4 | 4152 | C | Coast Guard Regulations require that OSV's under 100 GT must have a steering system that is capable of moving the rudder _____.  | by a required auxiliary steering system under emergency conditions when duplicated main steering power systems are provided | at one-half the maximum astern speed without damage  | from 35° on one side to 30° on the other side, in no more than 28 seconds, while making maximum headway   | from 15° on one side to 15° on the other side, in 30 seconds at 7 knots, or one-half the maximum speed |  |
| 4 | 4153 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new draft?           | 60 feet 9.6 inches  | 59 feet 2.7 inches   | 57 feet 11.5 inches   | 56 feet 10.9 inches  |  |



|   |      |   |  |                                   |                               |                              |  |  |
|---|------|---|--|-----------------------------------|-------------------------------|------------------------------|--|--|
| 4 | 4154 | D | Coast Guard Regulations require that prior to departure on a three-day voyage, the steering gear, whistle, and communications system between the bridge and engine room must be tested prior to departure no earlier than _____.                     | 1 hour                            | 4 hours                       | 8 hours                      | 12 hours                               |  |
| 4 | 4155 | C | The DEEP DRILLER is loaded as shown in the sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new uncorrected height of the center of gravity?                                     | 50.72 feet                        | 51.25 feet                    | 51.87 feet                   | 53.22 feet                             |  |
| 4 | 4157 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new height of the center of gravity corrected for longitudinal free surface effects? | 50.29 feet                        | 53.55 feet                    | 53.92 feet                   | 54.24 feet                             |  |
| 4 | 4158 | B | Your vessel's existing draft is FWD 19'-02", AFT 20'-10". Using the Guidance Manual for Loading M.V. GRAND HAVEN, determine the new draft if 170 long tons are discharged from No. 8 hatch.  | FWD 19'-00.4", AFT 20'-08.6"      | FWD 18'-10.8", AFT 20'-10.4"  | FWD 19'-03.4", AFT 20'-05.6" | FWD 19'-05.4", AFT 20'-03.4"           |  |
| 4 | 4159 | A | A yellow signal, floating in the air from a parachute, about 300 feet above the water, indicates that a submarine _____.   | will be coming to periscope depth | will be coming to the surface | is on the bottom in distress | is in distress and will try to surface |  |
| 4 | 4160 | B | Your vessel's drafts are: FWD 18'-09", AFT 20'-05"; and the KG is 23.8 feet. Use the selected stability curves in the blue pages of the Stability Data Reference Book to determine the righting arm at 30° inclination.                              | 0.9 feet                          | 2.1 feet                      | 4.0 feet                     | 5.9 feet                               |  |
| 4 | 4161 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new height of the center of gravity corrected for transverse free surface effects?       | 51.50 feet                        | 52.54 feet                    | 52.88 feet                   | 53.54 feet                             |  |
| 4 | 4165 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new height of the transverse metacenter?   | 61.19 feet                        | 62.80 feet                    | 62.99 feet                   | 62.94 feet                             |  |

|   |      |   |   |                    |                    |                    |                    |         |
|---|------|---|---|--------------------|--------------------|--------------------|--------------------|---------|
| 4 | 4167 | A | The DEEP DRILLER is loaded as shown in the Sample Load form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new metacentric height corrected for transverse free surface effects?                     | 11.26 feet         | 10.07 feet         | 9.67 feet          | 8.30 feet          |         |
| 4 | 4169 | C | The color of the signal flares sent up by a submarine about to surface from periscope depth is _____.   | green              | yellow             | white              | red                |         |
| 4 | 4170 | D | The color of the signal flares sent up by a submarine surfacing from periscope depth is _____.  | yellow             | red                | green              | white              |         |
| 4 | 4171 | C | The DEEP DRILLER is loaded as shown in the Sample Load form #3 (Preparing to Drill). If the liquid mud in mud pit #4 (see table 8) is dumped, what would be the new metacentric height corrected for longitudinal free surface effects?         | 10.07 feet         | 8.80 feet          | 7.59 feet          | 5.45 feet          |         |
| 4 | 4173 | B | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges all the cement in the P-Tanks. See Table 7. What is the change in KG?   | 0.24 foot downward | 0.49 foot downward | 0.88 foot downward | 1.02 feet downward |         |
| 4 | 4174 | C | Each EPIRB shall be tested using the integrated test circuit and output indicator every _____.  | week               | two weeks          | month              | quarter            |         |
| 4 | 4175 | B | How much non-liquid deck load can the DEEP DRILLER, loaded as shown in the sample Load Form #4 (Drilling), accept if the weight is placed at a VCG of 130 feet? Ballast added or discharged to maintain draft at 60 feet is done so at 10 feet. | 461.9 long tons    | 457.5 long tons    | 388.8 long tons    | 323.1 long tons    |         |
| 4 | 4177 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the sounding level changed to 6 feet and the mud weight decreased from 16 to 14 pounds/gallon?                      | 70.00 long tons    | 84.17 long tons    | 93.34 long tons    | 106.67 long tons   |         |
| 4 | 4178 | D | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 229.8 ft           | 234.3 ft           | 244.6 ft           | 253.5 ft           | ST-0156 |

|   |      |   |   |   |  |  |   |  |
|---|------|---|---|---|--|--|---|--|
| 4 | 4181 | D | The DEEP DRILLER is operating at a draft of 60 feet. There is 11.5 feet of drill water in each of the drill water tanks (5P and 5S). What would be the improvement in KGL if 5S is filled from 5P?  | 0.56 foot   | 0.49 foot  | 0.18 foot  | 0.08 foot   |  |
| 4 | 4183 | B | What is the shift in KG if all the liquid mud is dumped when the DEEP DRILLER is loaded as shown in the Sample Load #3 (Preparing to Drill)?  | 1.26 feet downward  | 1.51 feet downward   | 2.77 feet downward   | 1.47 feet downward  |  |
| 4 | 4187 | D | The DEEP DRILLER is drilling at 60 feet draft at a corrected KG of 54.0 feet. Ballast added or discharged to remain at a constant draft is at a VCG of 10 feet. How much non-liquid load would have to be removed from an average height of 130 feet above the keel to meet the maximum allowable KG at a draft of 60 feet for winds greater than 70 knots? | 1283 long tons  | 817 long tons  | 679 long tons  | 302 long tons   |  |
| 4 | 4188 | A | You are the operator of a 295 GRT uninspected towing vessel. Which type of fire extinguishing system is required on your vessel, if its construction was contracted for before August 27, 2003? (Uninspected Vessel Regulations)  | Type B-V semi-portable OR a fixed fire-extinguishing system   | Type B-IV semi-portable OR a fixed fire-extinguishing system   | Type B-III semi-portable AND a fixed fire-extinguishing system   | Fixed CO2, AND another fixed fire-extinguishing system  |  |
| 4 | 4189 | B | You are loading in the winter in Albany, N.Y., for a voyage to a port governed by the tropical load line mark. Which of the following statements is TRUE? (Hydrometer reading in Albany is 1.000)   | You may not exceed the winter load line mark when you finish loading except for the burnout to sea. | The freshwater allowance and burnout to sea may be subtracted from the required freeboard in Albany. | You may calculate the burnout necessary to reach the tropical zone and load extra cargo to compensate. | You may load to the winter mark less the fresh water allowance if you will be at the tropical mark upon arrival in the tropical zone. |  |
| 4 | 4190 | D | You are loading at port A, governed by the summer load line mark, for a voyage to port B, governed by the winter mark. The fresh water allowance is 10", and the hydrometer reads 1.020. Which statement is TRUE?   | You may not load beyond the winter mark except for 2 inches brackish water allowance.               | You may not load beyond the summer mark and must be at the winter mark upon arrival at port B.       | You may not load beyond the summer mark plus 8 inches brackish water allowance.                        | You may load to the summer mark plus 2 inches if you will be at the winter mark when entering the winter zone.                        |  |
| 4 | 4191 | C | The DEEP DRILLER is planning to operate while loaded as shown in the Sample Load Form #3 (Preparing to Drill). What is the margin between KGT and maximum allowable KG?   | 0.66 foot   | 2.58 feet  | 5.24 feet  | 7.87 feet   |  |

|   |      |   |  |   |   |  |  |
|---|------|---|--|---|---|--|--|
| 4 | 4193 | D | While going on location in 250 feet water depth when the pitch angle of the COASTAL DRILLER is 2 degrees, the single amplitude pitch period should be longer than _____.   | 0.2 second  | 0.4 second  | 4.9 seconds  | 13.9 seconds   |
| 4 | 4194 | B | You are loading in a port governed by the tropical load line mark for a voyage to a port governed by the winter mark. The fresh water allowance is 5 inches, and the hydrometer reads 1.005. Which statement is TRUE?  | You may load to the tropical mark plus 1 inch brackish water allowance.                                 | You must load so that each zone mark will not be submerged upon entering the zone.                | Your draft must not exceed the winter mark plus the fresh water allowance upon arrival off the discharge port.         | You may only load to the winter mark plus a brackish water allowance of 4 inches.  |
| 4 | 4195 | D | The motions of the COASTAL DRILLER during a normal transit when wind speeds are less than 70 knots are limited by _____.   | stability   | deck edge immersion   | wave heights   | leg strength   |
| 4 | 4196 | C | You are bound from port A governed by the summer load line mark to port B also governed by the summer mark. The great circle track will take you into a zone governed by the winter mark. Which statement is TRUE?   | You cannot load beyond the summer mark at port A and must be at the winter mark upon arrival at port B. | You can only load to the winter mark plus any fresh water allowance and burnout to sea at port A. | You must be at the winter mark when you enter the winter zone and cannot exceed the summer mark upon departing port A. | You can load so that upon arrival at the pier at port B your freeboard is equal to the summer mark less any fresh water allowance. |
| 4 | 4197 | C | While in 150 feet water depth when the pitch angle of the COASTAL DRILLER is 2 degrees, the platform roll period for going on location should be longer than _____.  | 0.5 second  | 5.0 seconds   | 10.0 seconds   | 13.5 seconds   |
| 4 | 4198 | D | A tanker loads at a terminal within the tropical zone. She will enter the summer zone six days after departing the loading port. She will burn off 45 tons/day and daily water consumption is 8 tons. How many tons may she load over that allowed by her summer load line?  | 270   | 278   | 291  | 318  |
| 4 | 4199 | B | A vessel's tropical load line is 6 in. above her summer load line. Her TPI is 127 tons. She will arrive in the summer zone 8 days after departure. She will burn off about 47 tons/day fuel and water consumption is 12 tons/day. How many tons may she load above her summer load line if she loads in the tropical zone? | 376   | 472   | 762  | 1016   |

|   |      |   |  |            |             |              |              |         |
|---|------|---|--|------------|-------------|--------------|--------------|---------|
| 4 | 4200 | D | A vessel has a maximum allowable draft of 28 feet in salt water and a fresh water allowance of 8 inches. At the loading berth, the water density is 1.011. To what draft can she load in order to be at her marks when she reaches the sea? (The salt water density is 1.025.)   | 27' 07.5"  | 27' 08.5"   | 28' 03.5"    | 28' 04.5"    |         |
| 4 | 4201 | C | While in 150 feet water depth when the pitch angle of the COASTAL DRILLER is 1 degree, the platform pitch period for going on location should be longer than _____.  | 0.2 second | 3.2 seconds | 7.0 seconds  | 9.2 seconds  |         |
| 4 | 4202 | B | Your vessel is floating in water of density 1010. The fresh water allowance is 8 inches. How far below her marks may she be loaded so as to float at her mark in saltwater of density 1025?  | 3.2 inches | 4.8 inches  | 6.4 inches   | 8.0 inches   |         |
| 4 | 4203 | C | While going on location in 200 feet water depth when the roll angle of the COASTAL DRILLER is 2.5 degrees, the roll period should be longer than _____.  | 0.8 second | 6.2 seconds | 13.0 seconds | 17.0 seconds |         |
| 4 | 4204 | A | You are loading in a port subject to the summer load line mark and bound for a port subject to the tropical load line mark. You will enter the tropical zone after steaming four days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 66. What is the minimum freeboard required at the start of the voyage? | 78 inches  | 82 inches   | 86 inches    | 88 inches    | BL-0022 |
| 4 | 4205 | A | While in 150 feet water depth when the single amplitude roll angle of the COASTAL DRILLER is 2 degrees, the safe platform roll period for going on location should be longer than _____.   | 0.5 second | 5.0 seconds | 10.0 seconds | 13.5 seconds |         |
| 4 | 4206 | D | You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming two days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 55. What is the minimum freeboard required at the start of the voyage?    | 62 inches  | 66 inches   | 70 inches    | 74 inches    | BL-0021 |

|   |      |   |   |              |             |             |             |         |
|---|------|---|---|--------------|-------------|-------------|-------------|---------|
| 4 | 4207 | C | While in 150 feet water depth when the single amplitude roll angle of the COASTAL DRILLER is 1 degree, the safe platform roll period for going on location should be longer than _____.   | 0.2 second   | 3.2 seconds | 7.0 seconds | 9.2 seconds |         |
| 4 | 4208 | C | You are loading in a port subject to the winter load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming six days. You will consume 32 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.005, and the average TPI is 65. What is the minimum freeboard required at the start of the voyage?   | 93 inches    | 90 inches   | 81 inches   | 70 inches   | BL-0020 |
| 4 | 4209 | D | You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming four days. You will consume 41 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000 and the average TPI is 55. What is the minimum freeboard required at the start of the voyage? | 55 inches    | 49 inches   | 44 inches   | 41 inches   | BL-0019 |
| 4 | 4210 | A | You are loading in a port subject to the summer load line mark and bound for a port subject to the winter load line mark. You will enter the winter zone after steaming four days. You will consume 35 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.0083, and the average TPI is 65. What is the minimum freeboard required at the start of the voyage? | 74 inches    | 78 inches   | 80 inches   | 86 inches   | BL-0018 |
| 4 | 4211 | B | The COASTAL DRILLER, while in normal transit, experiences a single amplitude roll of 6 degrees. What is the minimum roll period which does not exceed design limits of the legs?  | 10.5 seconds | 8.0 seconds | 4.5 seconds | 1.0 second  |         |

|   |      |   |   |                  |                 |             |              |         |
|---|------|---|---|------------------|-----------------|-------------|--------------|---------|
| 4 | 4212 | D | You are loading in a port subject to the tropical load line mark and bound for a port subject to the summer load line mark. You will enter the summer zone after steaming ten days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.021, and the average TPI is 51. What is the minimum freeboard required at the start of the voyage?   | 76 inches        | 74 inches       | 73 inches   | 72 inches    | BL-0017 |
| 4 | 4213 | D | While in ocean transit, the COASTAL DRILLER has a roll period of four seconds. What would be the largest angle each side of vertical that does not exceed the design limit of the legs?   | 6.3 degrees      | 5.0 degrees     | 3.5 degrees | 2.0 degrees  |         |
| 4 | 4214 | C | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eight days, and you will enter the winter zone after a total of ten days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.016, and the average TPI is 41. What is the minimum freeboard required at the start of the voyage? | 72 inches        | 70 inches       | 68 inches   | 64 inches    | BL-0015 |
| 4 | 4215 | A | A mat-type jack-up drilling unit is the best selection for _____.   | soft mud bottoms | uneven bottoms  | deep water  | hard bottoms |         |
| 4 | 4216 | D | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming four days, and you will enter the winter zone after a total of nine days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.008, and the average TPI is 53. What is the minimum freeboard required at the start of the voyage? | 72.5 inches      | 75.0 inches     | 77.0 inches | 80.0 inches  | BL-0016 |
| 4 | 4217 | A | A mat-supported jack-up is best suited for drilling in locations with bottom conditions which are _____.  | soft and level   | firm and uneven | sloping     | coral        |         |

|   |      |   |   |           |           |           |           |         |
|---|------|---|---|-----------|-----------|-----------|-----------|---------|
| 4 | 4218 | A | You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of twelve days. You will consume 31 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.000, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage? | 78 inches | 74 inches | 70 inches | 68 inches | BL-0013 |
| 4 | 4219 | B | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after a total of eleven days. You will consume 33 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage?     | 85 inches | 82 inches | 80 inches | 78 inches | BL-0011 |
| 4 | 4220 | A | You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of twelve days. You will consume 39 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 49. What is the minimum freeboard required at the start of the voyage? | 90 inches | 87 inches | 80 inches | 77 inches | BL-0010 |
| 4 | 4221 | C | Considering the changes to lightweight shown in section 5 of the COASTAL DRILLER Manual, the maximum allowable combination of hook, rotary, and setback load for the COASTAL DRILLER with the rotary located 34 feet aft of the transom and two feet to port of the centerline is _____.  | 1000 kips | 875 kips  | 854 kips  | 755 kips  |         |
| 4 | 4222 | A | The SS AMERICAN MARINER has the liquid loading shown. Use the white pages of The Stability Data Reference Book to determine the LCG-FP of the liquid load.  | 273.5 ft  | 288.8 ft  | 292.3 ft  | 305.3 ft  | ST-0157 |



|   |      |   |   |                                  |                               |                               |                               |         |
|---|------|---|---|----------------------------------|-------------------------------|-------------------------------|-------------------------------|---------|
| 4 | 4223 | B | On the COASTAL DRILLER, the maximum aft extension of the cantilever places the rotary _____.  | 68.33 feet aft of the transom    | 40.00 feet aft of the transom | 38.33 feet aft of the transom | 28.33 feet aft of the transom |         |
| 4 | 4224 | D | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming eleven days, and you will enter the winter zone after a total of fourteen days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.025, and the average TPI is 51. What is the minimum freeboard required at the start of the voyage? | 75.0 inches                      | 76.0 inches                   | 79.5 inches                   | 81.0 inches                   | BL-0006 |
| 4 | 4225 | A | The maximum transverse extension of the cantilever for the COASTAL DRILLER places the rotary _____.   | within 10 feet of the centerline | at the vessel TCG             | at the leg centroid           | 40 feet aft of the transom    |         |
| 4 | 4226 | B | You are loading in a port subject to the winter load line mark and bound for a port subject to the tropical load line mark. You will enter the summer zone after steaming four days, and you will enter the tropical zone after a total of seven days. You will consume 38 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.004, and the average TPI is 72. What is the minimum freeboard required at the start of the voyage?    | 85 inches                        | 90 inches                     | 92 inches                     | 94 inches                     | BL-0007 |
| 4 | 4227 | C | What is the maximum weight that can be placed in the setback area on the COASTAL DRILLER?   | 1000 kips                        | 750 kips                      | 450 kips                      | 375 kips                      |         |
| 4 | 4228 | B | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one day, and you will enter the winter zone after a total of eight days. You will consume 36 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.002, and the TPI is 47. What is the minimum freeboard required at the start of the voyage?                | 71.0 inches                      | 72.7 inches                   | 79.5 inches                   | 81.0 inches                   | BL-0005 |

|   |      |   |  |  |   |   |  |         |
|---|------|---|--|--|---|---|--|---------|
| 4 | 4229 | B | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming one and one-half days, and you will enter the winter zone after a total of six days. You will consume 29 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.006, and the average TPI is 43. What is the minimum freeboard required at the start of the voyage? | 79.5 inches  | 76.5 inches   | 75.0 inches                                       | 72.5 inches                                | BL-0008 |
| 4 | 4230 | B | You are loading in a port subject to the tropical load line mark and bound for a port subject to the winter load line mark. You will enter the summer zone after steaming six days. You will enter the winter zone after an additional three days. You will consume 28 tons of fuel, water, and stores per day. The hydrometer reading at the loading pier is 1.020, and the average TPI is 46. What is the minimum freeboard required at the start of the voyage?             | 61.4 inches  | 64.5 inches   | 70.6 inches                                       | 77.5 inches                                | BL-0012 |
| 4 | 4231 | D | A tanker loads at a terminal within the tropical zone. She will enter the summer zone five days after departing the loading port. She will burn off about 45 tons/day and daily water consumption is 8 tons. How many tons may she load over that allowed by her summer load line?   | 225  | 235   | 245   | 265  |         |
| 4 | 4232 | D | The number of approved adult life jackets that shall be carried is equal to _____. (small passenger vessel regulations)  | 120% of the number of persons listed in the vessel's Certificate of Inspection | 90% of the number of persons listed in the vessel's Certificate of Inspection | 90% of the number of persons on board at the time | the number of persons on board at the time |         |
| 4 | 4233 | D | Considering the changes to lightweight shown in Section 5 of the COASTAL DRILLER Manual, with the rotary 36 feet aft of the transom and 4 feet to port of the centerline, and with 300 kips in the setback, the maximum hook load is limited to _____.   | 870 kips   | 635 kips  | 335 kips  | 314 kips                                   |         |
| 4 | 4234 | B | Which type of fixed fire protection system is approved for use on board uninspected vessels? (Uninspected Vessel Regulations)  | Dry chemical   | Water mist  | Chemical foam                                     | Steam smothering                           |         |

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|---|------|---|--|---|--|---|--|--|
| 4 | 4235 | A | Until a change to lightweight has been approved, the weights and moments shown in the Changes to Lightweight Record of the COASTAL DRILLER are treated as _____.   | variable loads  | stationary loads   | fixed loads   | basic loads  |  |
| 4 | 4237 | D | The Cantilever Beam Load Chart for the COASTAL DRILLER shows the limits in the hook setback conductor tension, and _____.  | wind loads  | wave loads   | current loads   | rotary loads   |  |
| 4 | 4238 | B | You are the operator of a 296 GRT uninspected towing vessel. Its construction was contracted for after August 27, 2003. In addition to the hand portable fire extinguishers, how much other fire extinguishing equipment are you required to have on board? (Uninspected Vessel Regulations) | Either an approved B-V semi-portable fire-extinguishing system or a fixed fire-extinguishing system | Both an approved B-V semi-portable fire-extinguishing system and a fixed fire-extinguishing system | An approved water mist fire protection system and a fixed CO2 fire-extinguishing system | Both an approved B-V semi-portable fire-extinguishing system and an approved water mist fire protection system |  |
| 4 | 4239 | C | Either one approved B-V semi-portable fire-extinguishing system or a fixed fire-extinguishing system is required to protect the engine room on towing vessels whose construction was contracted for before _____. (Uninspected Vessel Regulations)   | April 29, 2005  | April 29, 2004   | August 27, 2003   | February 1, 2002   |  |
| 4 | 4240 | B | Both an approved B-V semi-portable fire-extinguishing system and a fixed fire-extinguishing system are required to protect the engine room on towing vessels whose construction was contracted for on or after _____. (Uninspected Vessel Regulations)                                       | February 1, 2002  | August 27, 2003  | April 29, 2004  | April 29, 2005   |  |
| 4 | 4241 | B | The COASTAL DRILLER is elevated in 250 feet of water, experiencing 2 knots current and 70 knot winds. With a maximum leg reaction of 5,760 kips, the maximum wave height for drilling is _____.  | 15 feet   | 20 feet  | 25 feet   | 30 feet  |  |
| 4 | 4242 | C | A certificated lifeboatman assigned to command the lifeboat should _____.  | be the first individual to board the craft  | drain the hydraulic pressure before lowering the craft   | have a list of the persons assigned to the lifeboat                                     | All of the above   |  |
| 4 | 4243 | D | The Cantilever Beam Load Chart for the COASTAL DRILLER shows the load limits in the hook, setback, conductor tension, and _____.   | wind loads  | wave loads   | pipe rack loads   | rotary loads   |  |

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| 4 | 4244 | A | You are the operator of a 290 GRT uninspected towing vessel whose construction was contracted for after August 27, 2003. Which type of semi-portable fire-extinguishing system is required on your vessel? (Uninspected Vessel Regulations) | B-V  | B-IV  | B-III  | None of the above  |  |
| 4 | 4245 | C | The maximum load line draft for the COASTAL DRILLER is _____.   | 12 feet 8 inches   | 11 feet 7.2 inches  | 10 feet 10.5 inches  | 10 feet 8.8 inches   |  |
| 4 | 4246 | A | Radiation spreads a fire by _____.  | transferring heat across an unobstructed space   | heated gases flowing through ventilation systems                                      | burning liquids flowing into another space   | transmitting the heat of a fire through the ship's metal   |  |
| 4 | 4247 | D | The maximum combined drilling load for the COASTAL DRILLER consisting of the combined hook, rotary, setback, and conductor tension, shall not exceed _____.   | 450 kips   | 500 kips  | 750 kips   | 1000 kips  |  |
| 4 | 4249 | B | How should you warm up a diesel engine that has not been run for some time?   | Run it at minimum speed until warmed to operating temperature.   | Idle for a brief period of time and then warm up at half speed.                       | Bring it up to top speed immediately and run until warmed up.                                    | Inject ether into the air intake to shorten warm up time.  |  |
| 4 | 4250 | B | A bulk freighter 580 ft. in length, 60 ft. beam, with a waterplane coefficient of .84 is floating in salt water at a draft of 21 ft. How many long tons would it take to increase the mean draft 1"?  | 65.1   | 69.6  | 74.3   | 76.8   |  |
| 4 | 4251 | D | What are the maximum acceptable levels of ice and snow accumulations on the COASTAL DRILLER?  | 3 inches   | 2 inches  | 1 1/4 inches   | none   |  |
| 4 | 4252 | D | Which statement about immersion suits is TRUE?  | The suit's oil resistance is such that it will be serviceable and be usable after exposure to gasoline or mineral spirits without needing to be specially treated. | The suit seals in body heat and provides protection against hypothermia indefinitely. | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds. |  |
| 4 | 4253 | B | What is the maximum weight permitted on the cantilever pipe racks for the COASTAL DRILLER?  | 450 kips   | 500 kips  | 750 kips   | 1000 kips  |  |

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|---|------|---|--|--|--|--|--|
| 4 | 4254 | D | Which statement about immersion suits is TRUE?   | The suit's oil resistance is such that it will be serviceable and be usable after exposure to gasoline or mineral spirits without needing to be specially treated. | The suit seals in body heat and provides protection against hypothermia indefinitely.                      | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds. |
| 4 | 4255 | B | What is the maximum permitted hook load for the COASTAL DRILLER when 450 kips are in the setback and no other loads are on the cantilever?   | 450 kips   | 529 kips   | 550 kips   | 750 kips   |
| 4 | 4256 | C | The SS AMERICAN MARINER has drafts of: FWD 28'-00", AFT 30'-04". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 110.8 tons of seawater. | FWD 28'-08.2", AFT 29'-11.6"   | FWD 28'-09.0", AFT 29' 11.0"   | FWD 28'-09.8", AFT 29' 10.4"   | FWD 28'-10.6", AFT 29' 09.8"   |
| 4 | 4257 | B | Considering the lightweight changes to the COASTAL DRILLER, what is the maximum permitted hook load permitted when 450 kips are in the setback and 200 kips are in the cantilever pipe rack?               | 350 kips   | 529 kips   | 550 kips   | 750 kips   |
| 4 | 4258 | A | Dacron sails, when not in use, may be damaged if _____.  | left in the sunlight   | stowed wet   | washed with soap   | folded frequently  |
| 4 | 4259 | B | Which statement about immersion suits is TRUE?   | The primary color of the suit's exterior may be red, orange or yellow.   | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds. | The suit is flameproof and provides protection to a wearer swimming in burning oil.              | The suit may be stored in a machinery space where the ambient temperature is 160°F.                        |
| 4 | 4260 | A | Which statement about immersion suits is TRUE?   | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds.   | The immersion suit seals in body heat and provides protection against hypothermia for weeks.               | The suit will still be serviceable after a brief (2-6 minutes) exposure to flame and burning.    | The collar must be inflated before abandoning ship.  |

|   |      |   |   |  |   |  |   |  |
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| 4 | 4261 | C | The rotary of the COASTAL DRILLER is located 34 feet aft of the transom and 2 feet to port of the centerline. With the changes to lightweight shown in the Operating Manual, the maximum allowable hook load is _____.                                      | 1000 kips  | 875 kips  | 854 kips   | 776 kips  |  |
| 4 | 4262 | A | Which statement about immersion suits is TRUE?  | Prior to abandonment, the suit allows body movement such as walking, climbing a ladder and picking up small objects. | The immersion suit seals in body heat and provides protection against hypothermia for weeks.  | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The wearer of the suit is severely restricted and requires twice the time to climb a ladder than without the suit       |  |
| 4 | 4263 | C | The rotary of the COASTAL DRILLER is located 38 feet aft of transom and 6 feet to starboard of the centerline. With the changes to lightweight shown in the Operating Manual, the maximum allowable hook load is _____.                                     | 1000 kips  | 445 kips  | 424 kips   | 346 kips  |  |
| 4 | 4264 | A | Which statement about immersion suits is TRUE?  | Prior to abandonment, the suit allows body movement such as walking, climbing a ladder and picking up small objects. | The immersion suit seals in body heat and provides protection against hypoglycemia for weeks. | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The wearer of the suit is severely restricted and requires 1.5 times more time to climb a ladder than without the suit. |  |
| 4 | 4265 | D | The rotary of the COASTAL DRILLER is located 36 feet aft of the transom and 6 feet to starboard of the centerline. The hook load is 300 kips. Considering the changes to lightweight shown in the Operating Manual, the maximum amount of setback is _____. | 545 kips   | 450 kips  | 245 kips   | 224 kips  |  |
| 4 | 4266 | A | Which statement about immersion suits is TRUE?  | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds.           | The immersion suit seals in body heat and provides protection against hypothermia for weeks.  | The suit will still be serviceable after a brief (2-6 minutes) exposure to flame and burning.    | The collar must be inflated before abandoning ship.   |  |
| 4 | 4267 | C | For the COASTAL DRILLER, what is the maximum rotary load that can be used when the rotary has been extended 40 feet aft of the transom?   | 750 kips   | 630 kips  | 609 kips   | 531 kips  |  |

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|---|------|---|--|--|--|--|---|
| 4 | 4268 | A | Which statement about immersion suits is TRUE?   | Prior to abandonment, the suit allows body movement such as walking, climbing a ladder and picking up small objects. | The immersion suit seals in body heat and provides protection against hypothermia for weeks.               | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The wearer of the suit is severely restricted and requires twice the time to climb a ladder than without the suit.      |
| 4 | 4269 | A | Which statement about immersion suits is TRUE?   | Prior to abandonment, the suit allows body movement such as walking, climbing a ladder and picking up small objects. | The immersion suit seals in body heat and provides protection against hypoglycemia for weeks.              | The suit is flameproof and provides protection to the wearer while swimming through burning oil. | The wearer of the suit is severely restricted and requires 1.5 times more time to climb a ladder than without the suit. |
| 4 | 4270 | B | Which statement about immersion suits is TRUE?   | The primary color of the suit's exterior may be red, orange or yellow.   | The suit must, without assistance, turn an unconscious person's mouth clear of the water within 5 seconds. | The suit is flameproof and provides protection to a wearer swimming in burning oil.              | The suit may be stored in a machinery space where the ambient temperature is 160°F.                                     |
| 4 | 4273 | C | The overturning forces acting on a floating jack-up are generally dominated by _____.  | waves  | current  | wind   | tide  |
| 4 | 4274 | C | Your vessel is greater than 100 GRT and carries more than 12 passengers. In addition to the licensed deck officer in the pilothouse, there should be on watch an additional crew member _____. | always in the pilothouse   | on lookout on the bow  | in or near the pilothouse  | only when visibility is restricted  |
| 4 | 4275 | B | The independent-leg drilling unit is the best jack-up rig selection for drilling at locations with _____.  | soft even bottoms  | firm uneven bottoms  | deep water   | shallow water   |
| 4 | 4276 | A | Your vessel is greater than 100 GRT and carries more than 12 passengers. In addition to the licensed deck officer in the pilothouse, there should be on watch an additional crew member _____. | in or near the pilothouse  | on the bridge wing   | always in the pilothouse   | only when another vessel is in sight  |
| 4 | 4277 | B | Drilling loads on the COASTAL DRILLER are the combined loads arising from conductor tension, rotary, hook, and _____.  | fixed loads  | setback loads  | basic loads  | variable loads  |

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| 4 | 4278 | B | Your vessel is greater than 100 GRT and carries more than 12 passengers. In addition to the licensed deck officer in the pilothouse, there should be on watch an additional crew member _____.   | on standby in the messroom   | in or near the pilothouse   | always in the pilothouse                          | reporting to the bridge every half hour            |        |
| 4 | 4279 | D | Your vessel is greater than 100 GRT and carries more than 12 passengers. In addition to the licensed deck officer in the pilothouse, there should be on watch an additional crew member _____.   | on lookout on the fore deck  | on the bridge wing  | always in the pilothouse                          | in or near the pilothouse                          |        |
| 4 | 4280 | B | Your drafts are: FWD 6'-02", AFT 6'-06". From past experience, you know that the vessel will increase her draft 1 inch for every 5 tons loaded. There is rig water on board and 15 tons of deck cargo. How many more tons of cargo can legally be loaded and still maintain the same trim? | none   | 5 tons  | 10 tons   | 20 tons  | D037DG |
| 4 | 4281 | D | The maximum allowable KG for the COASTAL DRILLER in normal transit at a draft of 10.5 feet is _____.   | 40 feet  | 45 feet   | 55 feet   | 65 feet  |        |
| 4 | 4282 | A | Your drafts are: FWD 6'-01", AFT 6'-05". From past experience, you know that the vessel will increase her draft 1 inch for every 5 tons loaded. There is rig water on board and 15 tons of deck cargo. How many more tons of cargo can legally be loaded and still maintain the same trim? | 10 tons  | 20 tons   | 35 tons   | None   | D037DG |
| 4 | 4283 | A | When underway at a draft of 10.5 feet in a severe storm, the COASTAL DRILLER has a maximum allowed KG of _____.  | 40 feet  | 50 feet   | 55 feet   | 65 feet  |        |
| 4 | 4284 | A | Failure to comply with, or enforce, the provisions of the "Vessel Bridge-to-Bridge Radiotelephone Act" can result in a _____.  | \$650 civil penalty charged against the person in charge of the vessel | \$1500 civil penalty charged against the person in charge of the vessel | \$500 criminal penalty charged against the Master | \$1500 criminal penalty charged against the Master |        |
| 4 | 4285 | D | During an ocean tow when the winds are less than 70 knots, the maximum allowable KG for the COASTAL DRILLER is _____.  | 38.75 feet   | 42.00 feet  | 44.00 feet  | 65.00 feet   |        |
| 4 | 4286 | B | A vessel which violates the "Vessel Bridge-to-Bridge Radiotelephone Act" may be charged a civil penalty of _____.  | \$100  | \$650   | \$1000  | \$1500   |        |



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| 4 | 4287 | C | While in ocean transit at a draft of 10 feet, the Coastal Driller has a maximum allowed KG of _____.   | 42 feet  | 44 feet  | 65 feet   | 70 feet  |  |
| 4 | 4288 | D | The Master or person in charge of a vessel subject to the "Vessel Bridge-to-Bridge Radiotelephone Act" who fails to comply with the Act or the regulations thereunder may be charged a civil penalty of _____. | \$2,000  | \$1,500  | \$1,000   | \$650  |  |
| 4 | 4289 | A | What is the penalty for failure to enforce, or comply with, the vessel bridge-to-bridge radiotelephone regulations?  | Civil penalty of no more than \$650  | Civil penalty of no more than \$5,000  | \$5,000 fine and imprisonment for not more than one year, or both | \$1,000 fine or imprisonment for not more than two years |  |
| 4 | 4290 | B | If you use obscene, indecent, or profane language over the radiotelephone, you can be _____.   | assessed a fine of up to \$5,000, imprisonment of up to three years, or both | assessed a fine not to exceed \$11,000, imprisonment of not more than two years, or both | assessed a fine not to exceed \$20,000                            | imprisoned up to five years                              |  |
| 4 | 4291 | D | While the COASTAL DRILLER is in transit, stability is acceptable provided that neither the KGL nor the KGT exceed _____.   | the height of the righting arm   | KML or KMT   | GML or GMT  | maximum allowable KG                                     |  |
| 4 | 4292 | A | A violation of the "Vessel Bridge-to-Bridge Radiotelephone Act" may result in a _____.   | civil penalty of \$650 against the Master or person in charge of a vessel    | civil penalty of \$1,000 against the vessel itself                                       | suspension and/or revocation of an operator's FCC license         | All of the above   |  |
| 4 | 4293 | C | Preloading tests the soil to the vertical leg reaction that would be imposed by _____.   | static forced and drilling loads   | a severe storm   | the design storm  | environmental forces                                     |  |
| 4 | 4294 | C | By regulation, you MUST keep a record of the use of your radiotelephone for a minimum of _____.  | six months   | one year   | two years   | thirty months  |  |
| 4 | 4295 | A | The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs so that the can tips are _____.  | 60.5 feet below the hull   | 48.5 feet below the hull   | 11.6 feet below the hull  | 1.2 feet below the hull                                  |  |
| 4 | 4296 | C | You have called another vessel by flashing light and he has answered your call properly. You now send your call sign "DE KLIS". He should respond with _____.  | TTTT   | his own call letters   | KLIS, DE, his own call letters                                    | R  |  |

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| 4 | 4297 | C | The COASTAL DRILLER is in ocean transit in which the winds are not expected to exceed 70 knots. In order to meet the leg strength requirements, the tip of can (TOC) position should be at _____.      | 0.00 feet (flush with bottom of hull)                      | 1.20 feet  | 12.38 feet  | 60.50 feet   |  |
| 4 | 4298 | A | What would white exhaust smoke from a diesel engine probably mean?   | Late fuel injection  | Excess combustion air  | High compression temperature  | Excessive lube oil consumption   |  |
| 4 | 4299 | D | When jumping into water upon which there is an oil-fire, you should _____.   | enter the water midships on the leeward side of the vessel | enter the water midships on the windward side of the vessel    | enter the water at the bow or stern on the leeward side of the vessel | enter the water at the bow or stern on the windward side of the vessel |  |
| 4 | 4301 | B | When leveling the elevated COASTAL DRILLER, you may raise the low corner instead of lowering the high corner _____.  | in all cases, it is optional                               | if lowering the high corner places the unit in the wave action | if proper air gap has been exceeded                                   | if a potential punch-through threatens                                 |  |
| 4 | 4303 | C | During a long ocean tow of a jack-up the clearance in the upper guide should be reduced to zero to restrain the leg and eliminate the impact loads from dynamic responses. This is best done by _____. | lowering the spud cans below the hull                      | raising the spud cans into hull recesses                       | tapering the upper guides and building up the teeth                   | remove certain lengths of leg  |  |
| 4 | 4304 | A | Which radiotelephone signal indicates receipt of a distress message?   | Received mayday  | Roger wilco  | SOS acknowledged  | Mayday, roger  |  |
| 4 | 4305 | B | The COASTAL DRILLER is experiencing a single amplitude roll angle of 3 degrees and a roll period of 10 seconds. What is the maximum water depth that can be used for going on location?                | 45 feet  | 95 feet  | 145 feet  | 245 feet   |  |
| 4 | 4306 | C | You are alone and administering CPR to an adult victim. How many chest compressions and how many inflations should you administer in each sequence?  | 15 compressions then 2 inflations                          | 15 compressions then 4 inflations                              | 30 compressions then 2 inflations                                     | 30 compressions then 4 inflations                                      |  |
| 4 | 4307 | D | To what distance below the hull must the legs of the COASTAL DRILLER be lowered in order to meet the stability and leg strength requirements during the wind speeds greater than 70 knots?             | 0.0 feet   | 1.2 feet   | 25.0 feet   | 60.5 feet  |  |
| 4 | 4308 | C | You are alone and administering CPR to an adult victim. How many chest compressions and how many inflations should you administer in each sequence?  | 15 compressions then 2 inflations                          | 15 compressions then 4 inflations                              | 30 compressions then 2 inflations                                     | 30 compressions then 4 inflations                                      |  |

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|---|------|---|---|----------------------------|----------------------|-----------------------------|---------------------------------------|---------|
| 4 | 4309 | D | Which channel has been designated for on-scene communications in GMDSS?   | 24                         | 2187.5               | 70                          | 16 and 2174.5                         |         |
| 4 | 4311 | A | The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs to 60.5 feet below the hull in order to meet the requirements for stability and _____.  | leg strength               | variable load        | environmental load          | load line                             |         |
| 4 | 4312 | A | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 11'-01", AFT 14'-07". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.30 feet                  | 1.17 foot            | 1.06 foot                   | 0.91 foot                             | ST-0158 |
| 4 | 4313 | A | The COASTAL DRILLER, in transit with winds expected to exceed 70 knots, must lower the legs to 60.5 feet below the hull in order to meet the requirements for leg strength and _____.   | stability                  | variable load        | environmental load          | load line                             |         |
| 4 | 4314 | A | In the illustration shown, the floating sheath knife is indicated as item number _____.   | 3                          | 4                    | 8                           | 23                                    | D014SA  |
| 4 | 4315 | A | Curve A in the Design Limits of Legs Chart of the Coastal Driller Operating Manual, shows the operating limits during severe storm conditions during transit based on _____.  | stability and leg strength | variable load        | environmental load          | load line                             |         |
| 4 | 4316 | B | In the illustration shown, the righting strap is shown as item number _____.  | 8                          | 9                    | 12                          | 16                                    | D014SA  |
| 4 | 4317 | A | Curve B in the Design Limits of Legs Chart of the Coastal Driller Operating Manual, shows the operating limits during normal transit based on _____.  | leg strength               | variable load        | environmental load          | load line                             |         |
| 4 | 4318 | D | In the illustration, the sea anchor is number _____.  | 1                          | 12                   | 14                          | 18                                    | D014SA  |
| 4 | 4319 | B | In the illustration shown, the external lifelines are shown as item number _____.   | 1                          | 12                   | 17                          | 19                                    | D014SA  |
| 4 | 4320 | C | In the illustration shown, the towing connection is shown as item number _____.   | 7                          | 9                    | 19                          | 21                                    | D014SA  |
| 4 | 4321 | A | Sea water temporarily pumped into tanks to simulate the increased vertical loading of environmental forces is termed _____.   | preload                    | liquid variable load | fixed load                  | basic load                            |         |
| 4 | 4322 | B | Under the Pollution Regulations, garbage disposal records are to be retained onboard the vessel _____.  | one year                   | two years            | until the end of the voyage | until the next Coast Guard inspection |         |

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| 4 | 4323 | B | Guide tolerances during elevation of the jack-up rig will _____.  | reduce spud can bearing pressure   | keep the unit level and reduce overloading                         | reduce stresses on the hull   | minimize the potential for punch-through  |         |
| 4 | 4324 | B | Under the Pollution Regulations, garbage disposal records must be retained onboard for _____.   | one year   | two years  | until the end of the voyage   | until the next Coast Guard inspection   |         |
| 4 | 4325 | C | Lowering the hull of the COASTAL DRILLER and refloating should be done in favorable weather conditions with wave heights not more than _____.   | three feet   | four feet  | five feet   | six feet  |         |
| 4 | 4326 | D | The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 279.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 267.7 feet  | LCG-FP 268.4 feet  | LCG-FP 269.2 feet   | LCG-FP 270.6 feet   | ST-0159 |
| 4 | 4327 | C | When fighting a fire in an enclosed space, the hose team should crouch as low as possible to _____.   | maneuver with the hose more easily   | obtain the best available air for breathing                        | allow the heat and steam to pass overhead   | None of the above   |         |
| 4 | 4328 | D | Kevlar sails, when not in use, may be damaged if _____.   | left in the sunlight   | washed with water and bleach                                       | folded frequently   | All of the above  |         |
| 4 | 4329 | A | On a tank vessel, each high level alarm and tank overfill alarm must be tested _____.   | no earlier than 24 hours prior to loading  | no later than 24 hours prior to loading                            | anytime prior to loading  | weekly  |         |
| 4 | 4330 | C | Which vessel is required to carry a Category I, 406 MHz EPIRB installed to automatically float free and activate? (small passenger vessel regulations)  | A vessel operating within 3 miles from the coastline in the Gulf of Mexico.  | A vessel operating on the ocean within 5 miles from the coastline. | A vessel operating beyond 3 miles from the coastline of the Great Lakes.                                | A vessel operating exclusively on inland waters.  |         |
| 4 | 4331 | B | On the COASTAL DRILLER, a noticeable increase in the level indicator while extracting the legs from the soil indicates _____.   | the legs are free  | one or two legs are stuck  | a punch-through is occurring  | the legs are being extracted through a punch-through soil layer   |         |
| 4 | 4332 | A | Which statement about pneumatic chipping tools is TRUE?   | The equipment shall be secured to the hose by a quick-disconnect coupling to prevent the tool from becoming accidentally disconnected. | The equipment must be grounded to prevent shock hazard.            | The chipping mechanism is made of non-sparking material that is safe to use near explosive atmospheres. | The needles of the needle-type chipping gun must be replaced when they have been blunted more than ½ of their diameter. |         |

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| 4 | 4333 | C | The COASTAL DRILLER is experiencing a single amplitude roll angle of 2 degrees and a roll period of 10 seconds. What is the maximum recommended water depth for elevating?  | 50 feet   | 100 feet  | 150 feet  | 200 feet   |         |
| 4 | 4334 | D | What is the function of an air receiver in the compressed air system?   | Condenses moisture  | Provides overpressure protection                          | Purifies the air  | Acts as an accumulator   |         |
| 4 | 4335 | C | The COASTAL DRILLER is experiencing a single amplitude roll angle of 1 degree and a roll period of 7 seconds. What is the maximum recommended water depth for elevating?  | 50 feet   | 100 feet  | 150 feet  | 200 feet   |         |
| 4 | 4336 | C | The SS AMERICAN MARINER has on board 5486 tons of cargo with an LCG-FP of 277.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.2 feet   | LCG-FP 272.1 feet   | LCG-FP 273.6 feet   | LCG-FP 274.6 feet  | ST-0160 |
| 4 | 4337 | B | The COASTAL DRILLER, following discharge of preload, should _____.  | leave dump valves open  | close all dump valves                                     | remove dump valves  | replace dump valves  |         |
| 4 | 4338 | C | When using a pneumatic chipping tool all of the following are TRUE except?  | The equipment is not required to be grounded to prevent shock hazard. | It is not intended to be used in an explosive atmosphere. | The needles of the needle-type chipping gun must be replaced when they have been blunted more than 1/2 of their diameter. | The equipment shall be secured to the hose by a quick-disconnect coupling to prevent the tool from becoming accidentally disconnected. |         |
| 4 | 4339 | C | You are preparing to load fuel oil on a vessel of 150 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.  | are not obstructed by on-deck cargo                                   | have a fire extinguisher within the immediate area        | have portable containment capacity for at least 5 gallons   | are opened and the flame screen replaced   |         |
| 4 | 4341 | D | The COASTAL DRILLER is elevated to an air gap of 25 feet in 250 feet of water. The current is 2 knots and the waves are 30 feet. The maximum leg reaction is 6,120 kips. What is the maximum wind for drilling operations?                  | 100 knots   | 70 knots  | 60 knots  | 40 knots   |         |

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|---|------|---|---|--|---|---|--|--|
| 4 | 4342 | C | When is direct voice communication allowed in place of an internal communication system between the engine room and the operating station on a towing vessel? | When the vessel is less than 26 meters in length | When the vessel is ruled to be an "existing vessel" | When the controls at the operation station are within 10 feet of the engine room access | When a person's voice can be heard better than a portable radio with existing background noise |  |
| 4 | 4343 | C | Where must the draft marks be placed on a small passenger vessel?   | On each side of the stem                         | Near the stern post or rudder post                  | At each end of the vessel   | On each side, amidships  |  |
| 4 | 4344 | A | An advantage of a dry chemical over a carbon dioxide fire extinguisher is its _____.  | greater range                                    | cooling ability                                     | cleanliness   | All of the above   |  |
| 4 | 4345 | C | What information must be available to use the Allowable Wind and Wave Charts for the COASTAL DRILLER?   | Soil conditions                                  | Overturning moment                                  | Water depth   | Specific gravity of the sea water  |  |
| 4 | 4346 | B | The EPIRB on board your vessel is required to be tested _____.  | weekly   | monthly   | quarterly   | yearly   |  |
| 4 | 4347 | D | In using the Allowable Wind and Wave Charts for the COASTAL DRILLER, leg penetration is assumed to be less than _____.  | 55 feet  | 45 feet   | 35 feet   | 25 feet  |  |
| 4 | 4348 | A | The vessel's fire control plan is laid out on which of the following type of plan?  | General arrangement                              | Midship section                                     | Subdivision   | Lines  |  |
| 4 | 4349 | D | Which type of plan is used to outline the vessel's fire fighting arrangement within the fire control plan?  | Partial  | Inboard profile                                     | Subdivision and stability   | General arrangement  |  |
| 4 | 4350 | C | Besides general arrangement plans, what other mediums may be utilized to provide fire control details to officers during fire and emergencies?                | Microfilm  | Blueprint   | Booklet Form  | None of the above  |  |
| 4 | 4355 | B | If the maximum leg penetration of the COASTAL DRILLER is 75 feet, the water depth value in the Allowable Wind and Wave Charts must be increased by _____.     | 75 feet  | 50 feet   | 25 feet   | 0 feet   |  |
| 4 | 4356 | A | Which organization reviews and approves a vessel's fire control plan?   | U.S. Coast Guard                                 | Maritime Administration                             | Vessel's classification society   | International Maritime Organization  |  |
| 4 | 4357 | C | In using the Allowable Wind and Wave Charts for the COASTAL DRILLER, which of the three leg reactions is required?  | Minimum  | Average   | Highest   | Preloaded value  |  |
| 4 | 4358 | A | What organization approves symbols to be used for fire control plans?   | International Maritime Organization              | American Bureau of Shipping                         | Maritime Administration   | U.S. Coast Guard   |  |

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| 4 | 4359 | D | The symbols for fire control plans are approved by which organization?   | National Fire Protection Agency                        | U.S. Coast Guard                                   | International Association of Classification Societies      | International Maritime Organization           |  |
| 4 | 4360 | C | Which of the following is NOT identified on the vessel's fire control plan?  | Gas detector   | Fire control plan                                  | Fire and emergency signals                                 | Dry chemical monitor                          |  |
| 4 | 4361 | D | On the COASTAL DRILLER, hook load includes the weight of the _____.  | setback load   | rotary load  | conductor tension  | drill string                                  |  |
| 4 | 4362 | A | The free surface effects of a partially full tank in a vessel increase with the _____.   | surface area of the fluid in the tank                  | displacement volume of the vessel                  | draft of the vessel  | height of the tank above the keel             |  |
| 4 | 4363 | A | Scouring is the result of _____.   | interruption of the normal current flow by the footing | elevating in mud-slide zones                       | penetrating rapidly through a hard crust into weaker soils | extracting legs from soils with high cohesion |  |
| 4 | 4364 | B | Which of the following is NOT identified on the vessel's fire control plan?  | Fire main system                                       | Muster lists                                       | Secondary means of escape                                  | Bilge pumps                                   |  |
| 4 | 4365 | B | Which of the following is NOT required to be part of a vessel's Fire Control Plan?   | Ventilation fan location                               | Ventilation fan capacity                           | Ventilation fan control                                    | Ventilation dampers                           |  |
| 4 | 4366 | C | On the vessel's Fire Control Plan, all parts of the fire main are listed EXCEPT?   | Fire pump(s) location                                  | Fire pump capacity                                 | Diameter of fire main                                      | Fire station locations                        |  |
| 4 | 4367 | D | The Fire Control Plan must contain detailed information on which of the following systems?   | Fixed fire suppression                                 | Ship construction                                  | Ventilation  | All of the above                              |  |
| 4 | 4368 | D | On the vessel's Fire Control Plan, all parts of a fixed fire suppression system are listed EXCEPT?                                 | Spaces protected by the system                         | Extinguishing agent cylinder location              | Remote cylinder release(s)                                 | Instructions for activation of system         |  |
| 4 | 4369 | B | Which of the following is not required to be included on Fire Control Plans?   | Smoke detectors  | Communication plan                                 | Secondary means of escape                                  | All watertight doors                          |  |
| 4 | 4370 | C | On a MODU, where MUST the fire control plan be posted?   | Crew lounge  | Mess Area  | Control Center   | None of the above                             |  |
| 4 | 4371 | A | Where the seabed consists of sand or silt, the most severe potential problem for an independent-leg jack-up can result from _____. | scour  | penetration  | marine growth  | insufficient preload                          |  |
| 4 | 4372 | A | On a MODU, where Must the fire control plan be posted?   | Pilot house  | Mess Area  | Crew Lounge  | None of the above                             |  |
| 4 | 4373 | A | In comparison to electric power, hydraulic power for jacking systems has the advantage of _____.                                   | better control capabilities                            | less maintenance and repair                        | fewer personnel needed during jacking                      | less preload needed                           |  |
| 4 | 4374 | B | Which passenger vessel is required to permanently exhibit a fire control plan?   | any vessel over 500 Gross Tons                         | a vessel 500 Gross Tons on an international voyage | a vessel 500 Gross Tons on a domestic voyage               | None of the above                             |  |

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|---|------|---|--|---|--|--|---|--------|
| 4 | 4375 | B | On the COASTAL DRILLER, what is NOT considered a drilling load?  | Hook load   | Cantilever pipe rack   | Conductor tension  | Setback   |        |
| 4 | 4376 | D | What is the purpose of a fire control plan aboard passenger ships?   | guidance for the officer-in-charge in the event of fire             | facilitate shore-side fire fighters in fighting fire aboard the vessel | show passengers where to evacuate in event of fire                       | All of the above  |        |
| 4 | 4377 | B | The elevating system of the COASTAL DRILLER is normally limited to _____.  | 14,158 kips   | 14,400 kips  | 17,280 kips  | 21,297 kips   |        |
| 4 | 4378 | A | In what location MUST a duplicate fire control plan be located?  | Gangway   | Engine Room  | Crew Mess  | Chief Mate's Office   |        |
| 4 | 4379 | C | In what location would a duplicate fire control plan normally NOT be located?  | Navigation Bridge   | Engine Room Control  | Master's Office  | Crew and Passenger Areas  |        |
| 4 | 4380 | A | Which fire control plan symbol represents the agent or device best suited for extinguishing a class "A" fire?  | 56  | 47   | 36   | 26  | D039SA |
| 4 | 4381 | B | Which fire control plan symbol(s) represents the agent or device best suited for extinguishing a class "B" fire?   | 16 and 47   | 16 and 36  | 47   | 26  | D039SA |
| 4 | 4383 | C | In an emergency, the jacking system on the COASTAL DRILLER is capable of elevating the unit with a loading of _____.   | 14,158 kips   | 14,400 kips  | 17,280 kips  | 21,297 kips   |        |
| 4 | 4384 | C | A vessel's fire control plan shall _____.  | be posted in every space crewmembers eat and socialize.             | be written in Spanish and English.                                     | have a duplicate set of plans permanently stored outside the deck house. | provide a snapshot of the area of every crew member's stateroom in their stateroom. |        |
| 4 | 4385 | C | While elevated as shown in Sample Load Form #3 (Drilling), winds are 57 knots and current is 2 knots. What is the maximum wave height allowed for drilling?  | 30 feet   | 33 feet  | 35 feet  | 40 feet   |        |
| 4 | 4386 | B | A vessel's fire control plan shall be _____.   | posted every 150 feet along the most continuous deck on the vessel. | permanently posted for the guidance of ship's officers.                | given to each crewmember in booklet form.                                | translated into three languages: English, French and Spanish.                       |        |
| 4 | 4387 | B | The COASTAL DRILLER is elevated in 192 feet of water. Leg penetration is 83 feet. The maximum leg reaction is 5,940 kips. The waves are 30 feet and the current is 2 knots. What is the maximum wind for drilling? | 45 knots  | 50 knots   | 57 knots   | 62 knots  |        |



|   |      |   |   |                                       |                               |                          |  |         |
|---|------|---|---|---------------------------------------|-------------------------------|--------------------------|--|---------|
| 4 | 4388 | A | In addition to the official language of the flag state, the Fire Control Plan must also be translated into English or _____.  | French                                | Spanish                       | German                   | Japanese   |         |
| 4 | 4389 | C | Which fire control plan symbol represents the agent or device best suited for extinguishing a class "C" fire?   | 47                                    | 56                            | 26                       | 36   | D039SA  |
| 4 | 4391 | C | Which data is NOT used in the Allowable Wind and Wave Charts for the COASTAL DRILLER?   | Leg penetration                       | Wave height                   | Total weight             | Current  |         |
| 4 | 4392 | B | The fire control plan symbol that designates a space or compartment protected by halon 1301 is _____.   | 10                                    | 11                            | 12                       | 44   | D039SA  |
| 4 | 4393 | D | Environmental loading consists of the forces caused by wind, waves, and _____.  | drilling                              | soil reactions                | temperature              | current  |         |
| 4 | 4394 | D | On fire control plans, the halon room with the main battery of halon 1301 bottles is designated by which symbol?  | 44                                    | 43                            | 11                       | 10   | D039SA  |
| 4 | 4395 | A | The fire control plan symbol represented by number (7) is a _____.  | space protected by CO2                | CO2 horn                      | CO2 alarm                | release station for CO2                            | D039SA  |
| 4 | 4396 | D | The fire control plan symbol represented by (16) is a _____.  | foam station                          | foam monitor (gun)            | foam nozzle              | space protected by foam                            | D039SA  |
| 4 | 4397 | A | What maximum wind velocity is assumed when determining the limits of elevated service for the COASTAL DRILLER?  | 100 knots                             | 70 knots                      | 50 knots                 | It varies with the Allowable Wind and Wave charts. |         |
| 4 | 4398 | B | The fire control plan symbol represented by (56) is a _____.  | water monitor (gun)                   | water fog applicator          | space protected by water | sprinkler head                                     | D039SA  |
| 4 | 4399 | C | This fire control plan symbol represented by (39) is a space protected by _____.  | water                                 | foam                          | sprinkler                | none of the above                                  | D039SA  |
| 4 | 4400 | D | On a vessel's fire control plan, the symbol( 64) refers to a _____.   | infrared gas detector                 | dry chemical installation     | inertial gauge           | inert gas installation                             | D039SA  |
| 4 | 4401 | B | Use of air gaps in excess of that stated in the Limits of Elevated Service for the COASTAL DRILLER could result in _____.   | the hull being in the storm wave zone | increased overturning moments | reduced exposed area     | increased static leg loading                       |         |
| 4 | 4402 | D | The SS AMERICAN MARINER has on board 6584 tons of cargo with an LCG-FP of 277.84 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.2 feet                     | LCG-FP 272.1 feet             | LCG-FP 273.6 feet        | LCG-FP 274.6 feet                                  | ST-0161 |
| 4 | 4403 | B | Scouring usually occurs with soils such as _____.   | clay                                  | sand                          | coral                    | mud  |         |

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|---|------|---|---|--|--|---|--|--------|
| 4 | 4404 | A | The letter and number symbols, such as B-II, used to classify portable fire extinguishers indicate the _____.   | class of fire and size of the extinguisher | class of fire and location aboard vessel | extinguishing agent and relative size of the extinguisher | extinguishing agent and location aboard vessel |        |
| 4 | 4405 | D | Leg penetration to depths which require pullout forces greater than that which can be supplied by the buoyancy of the hull may exist in _____.  | soft mud                                   | sand                                     | silt  | soft to firm clays                             |        |
| 4 | 4406 | C | On a vessel's fire control plan, the symbol (30) refers to a _____.   | foam station                               | fuel shutoff                             | fire station  | none of the above                              | D039SA |
| 4 | 4410 | B | You must evacuate crewmembers from a space filling with smoke. The primary means of escape is blocked by the fire. What fire control plan symbol designates the secondary means of escape?      | 61   | 62                                       | 63  | 19   | D039SA |
| 4 | 4411 | C | While the COASTAL DRILLER is in a normal transit, the roll period is 9 seconds. What is the limiting angle of roll which does not exceed the design limits of the legs?                         | 11°  | 9°                                       | 7°  | 5°   |        |
| 4 | 4412 | A | What two fire control plan symbols designates the directional means of escape?  | 61 and 62                                  | 62 and 63                                | 61and 19  | 63 and 69                                      | D039SA |
| 4 | 4413 | C | The COASTAL DRILLER, while in a normal transit, experiences single amplitude rolling of three degrees. What is the minimum period of roll which does not exceed the design limits of the legs?  | 1.5 seconds                                | 3.0 seconds                              | 5.5 seconds   | 7.0 seconds                                    |        |
| 4 | 4414 | A | You must evacuate crewmembers from a space filling with smoke. What fire control plan symbol designates the primary means of escape?  | 61   | 62                                       | 63  | 69   | D039SA |
| 4 | 4415 | D | While in ocean transit, the COASTAL DRILLER has a roll period of 9 seconds. What is the largest angle each side of vertical that does not exceed the design limits of the legs in good weather? | 14°  | 11°                                      | 9°  | 7°   |        |
| 4 | 4416 | D | The color of the signal flare sent up by a submarine indicating that a torpedo has been fired in a training exercise is _____.  | white                                      | yellow                                   | red   | green  |        |

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| 4 | 4417 | A | The COASTAL DRILLER, while in an ocean transit, experiences a single amplitude roll of 8 degrees. What is the minimum period of motion which does not exceed the design limits of the legs?   | 10 seconds                                | 8 seconds                             | 6 seconds  | 4 seconds  |        |
| 4 | 4418 | A | On fire control plans, the CO2 bottle room is designated by which symbol?   | 42  | 9                                     | 8  | 7  | D039SA |
| 4 | 4420 | A | In this view of the bridge deck on the fire control plan, what is represented by the symbol on the aft bulkhead, port side of the wheelhouse?   | Fire Alarm Panel                          | Water Tight Door(s) Switch            | Emergency Lighting Board                             | Copy of Fire Control Plan                                  | D035SA |
| 4 | 4421 | C | While the COASTAL DRILLER is in normal transit, the roll period is 8 seconds. What would be the limiting angle of pitch which does not exceed the design limits of the legs?  | 10°                                       | 8°                                    | 6°   | 4°   |        |
| 4 | 4422 | D | Viewing the bridge level of your vessel's fire control plan, what do the two symbols within the machinery casing represent?   | CO2 and Halon bell alarms                 | CO2 and Halon remote pull stations    | CO2 and Halon bottle room                            | CO2 and Halon protected spaces                             | D035SA |
| 4 | 4423 | D | While in ocean transit, the COASTAL DRILLER experiences a single amplitude roll of 5 degrees. What is the minimum roll period that does not exceed the design limits of the legs?   | 2.7 seconds                               | 4.0 seconds                           | 6.5 seconds  | 7.2 seconds  |        |
| 4 | 4424 | B | When the remote push button located in the wheelhouse, starboard side, frame 122, is actuated, what is the result?  | Engine room water tight doors are secured | Ventilation ducts are secured         | CO2 or Halon extinguishing systems will be energized | The general alarm will sound the fire and emergency signal | D035SA |
| 4 | 4425 | D | The Master has ordered you to pull the remote ventilation shut down which is found in what location?  | Port side fan room, frame 138             | Portside of the wheelhouse, frame 122 | Starboard side exterior, frame 132                   | Starboard side of the wheelhouse, frame 122                | D035SA |
| 4 | 4426 | C | Your vessel has suffered a casualty and is in danger of sinking. The Master orders abandon ship but a crew member is missing. You have located the crew member but she is trapped in the Steward's Office. Where is the nearest fire axe to gain entry? | Starboard side, frame 132                 | Halon Room                            | Portside, Frame 132                                  | CO2 Room   | D036SA |
| 4 | 4427 | D | The solid arrow in the Crew Mess represents _____.  | path of forced ventilation                | search and rescue route               | nearest door   | primary means of escape                                    | D036SA |
| 4 | 4428 | C | What emergency equipment is NOT found in the Crew Mess in this view of the vessel's fire control plan?  | Primary Means of Escape                   | Fire Alarm                            | Heat Sensor  | Smoke Detector   | D036SA |

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|---|------|---|---|--|--|--|--|--------|
| 4 | 4429 | C | Which statement is NOT true about the starboard passageway between frames 122-139?  | There is a water tight door                | A push button for halon release is not in the passageway | A water fog applicator is available                  | A primary means of escape is not shown     | D036SA |
| 4 | 4431 | A | In this view of the vessel's fire control plan, what emergency equipment is located in the scullery?  | Heat Detector                              | Gaylord system release valve                             | Fixed water extinguishing system                     | Fire alarm pull box                        | D036SA |
| 4 | 4432 | D | You are part of a team to overhaul a fire that was just extinguished in the crew lounge. Where is the nearest fire axe to break apart the furniture?  | Midships, frame 123                        | Starboard side, frame 123                                | Port side, frame 132                                 | Starboard side, frame 132                  | D036SA |
| 4 | 4433 | B | You are on the second deck in the main machinery space. What emergency equipment, if any, is located at frame 107?  | CO2 fire extinguisher and 1 1/2" fire hose | Fire main valve and 1 1/2" fire hose                     | Smoke detector and bell alarm                        | None of the above                          | D037SA |
| 4 | 4434 | A | You are on the second deck of the engine room between frames 92 thru105 and the space is filling up with smoke. The primary means of escape from that area is via a ladderwell which is located at _____. | portside ladderwell, frame 106             | portside ladderwell, frame 93                            | starboard side ladderwell, frame 119                 | Either A or B                              | D037SA |
| 4 | 4435 | B | The COASTAL DRILLER has sufficient reserve stability to overcome damage due to flooding of any one watertight compartment in winds to _____.  | 36 knots                                   | 50 knots   | 70 knots   | 100 knots                                  |        |
| 4 | 4436 | C | There is an out of control fire on the Auxiliary Machinery Flat. What fixed extinguishing system in that space would be the best means to extinguish the fire?  | H2O  | CO2  | Halon  | Drenching                                  | D037SA |
| 4 | 4437 | A | You are part of a search team and have been told that the wiper was last sighted next to the fire pump (s) in the lower engine room. What is the exact location of the fire pump(s)?                      | Machinery space, port side, frame 131      | Machinery space, port side, frame 127                    | Auxiliary machinery space, starboard side, frame 104 | Machinery space, starboard side, frame 123 | D038SA |
| 4 | 4438 | C | You are being directed to a fire in the lower engine room, portside, frame 127. What machinery is found in that exact location?   | Emergency fire pumps                       | Generator  | Bilge pump(s)  | Lube Oil Purifier                          | D038SA |
| 4 | 4439 | D | In this view of the fire control plan of the lower engine room, what does the arrow between frames 135 and 140 represent?   | Direction of fire main                     | Secondary means of escape                                | Missing person search pattern                        | Primary means of escape                    | D038SA |
| 4 | 4440 | C | From this view of the vessel's fire control plan, how many spaces are protected by a fixed CO2 extinguishing system?  | 4  | 3  | 2  | 1  | D038SA |
| 4 | 4441 | C | On fire control plans, the dry chemical releasing station is designated by which symbol?  | 42   | 47   | 50   | 10   | D039SA |

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|---|------|---|--|--|--|--|--|--------|
| 4 | 4446 | B | On international voyages, tank ships of 500 gross tons or more, are required to have facilities to enable a connection on each side of the ship for this fire control equipment _____. | 54   | 53   | 51   | 19   | D039SA |
| 4 | 4447 | D | When a helicopter is lifting personnel from a survival craft, the other individuals in the craft should _____.   | enter the water in case the person being lifted slips from the sling               | stand on the outside of the craft to assist the person being lifted                              | remove their life preservers to prepare for their transfer to the helicopter       | remain seated inside the craft to provide body weight for stability                                |        |
| 4 | 4448 | A | Symbol (51) in this diagram is found all through out the ship. What fire control equipment does symbol (51) represent?   | Fire main with fire valves   | Foam valves  | Bilge pump valves  | Sprinkler valves   | D039SA |
| 4 | 4452 | A | The location of a spare set of fire control plans on board the vessel is designated by what approved symbol?   | 1  | 30   | 37   | 69   | D039SA |
| 4 | 4453 | C | When transferring survivors from a survival craft to a rescue vessel, personnel on board the craft should _____.   | remove their life preservers to make it easier to climb on board the rescue vessel | climb on top of the survival craft while waiting for their turn to transfer to the rescue vessel | remain seated inside the survival craft and make the transfer one person at a time | enter the water and swim over to the rescue vessel   |        |
| 4 | 4454 | A | Which fire control plan symbol will NOT be found in your stateroom?  | 30   | 39   | 59   | 60   | D039SA |
| 4 | 4455 | D | What is the primary advantage of a davit-launched liferaft in comparison to an inflatable liferaft?  | The davit-launched liferaft is easier to maintain.                                 | The davit-launched liferaft is made of fire-retardant material.                                  | The davit-launched liferaft has a built-in sprinkler system for fire protection.   | The davit-launched liferaft enables personnel to enter the raft without having to enter the water. |        |
| 4 | 4456 | A | A complete recharge for a self-contained breathing apparatus can be found in what location designated by this symbol on the ship's fire control plan?                                  | 58   | 59   | 60   | 30   | D039SA |
| 4 | 4457 | A | Prior to entering a davit-launched liferaft, you should make sure that _____.  | the liferaft is well ventilated of excess carbon dioxide                           | all personnel have removed their life preservers to facilitate boarding                          | the door flap has been cut away and stowed inside the raft                         | All of the above   |        |
| 4 | 4458 | A | Any firefighting equipment that is carried in addition to the minimum required must _____.   | meet the applicable standards  | be marked as additional equipment  | be stowed in a separate area   | All of the above   |        |

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| 4 | 4460 | C | A locker with additional breathing apparatuses can be found in what location designated by this symbol on the ship's fire control plan?   | 30                              | 58   | 59                     | 60   | D039SA |
| 4 | 4461 | D | If you have to jump in the water when abandoning a MODU, your legs should be _____.   | spread apart as far as possible | held as tightly against your chest as possible | in a kneeling position | extended straight down and crossed at the ankles |        |
| 4 | 4462 | D | A locker with additional protective clothing can be found in what location designated by this symbol on the ship's fire control plan?   | 30                              | 58   | 59                     | 60   | D039SA |
| 4 | 4463 | C | The COASTAL DRILLER's ability to meet the damage stability criteria depends on maintaining a watertight integrity, KGL and KGT less than maximum allowed, level attitude, and displacement less than _____.       | 11,777 kips                     | 13,158 kips                                    | 14,158 kips            | 17,280 kips                                      |        |
| 4 | 4464 | B | A complete set of spare batteries for a fireman's outfit can be found in what location designated by this symbol on the ship's fire control plan?   | 58                              | 30   | 68                     | 59   | D039SA |
| 4 | 4465 | B | The COASTAL DRILLER's ability to meet the damage stability criteria depends on maintaining watertight integrity, displacement less than 14,158 kips, level attitude, and KGT and KGL less than _____.             | the height of the righting arm  | the maximum allowed                            | GMT and GML            | BMT and BML                                      |        |
| 4 | 4466 | B | Which Fire Control Plan symbol represents an international shore connection?  | 54                              | 53   | 51                     | 49   | D039SA |
| 4 | 4467 | A | Which Fire Control Plan symbol represents a push button for a fire alarm?   | 2                               | 5  | 6                      | 24   | D039SA |
| 4 | 4468 | D | Which piece(s) of equipment represented by these Fire Control Plan symbols can be found on the exterior of the vessel?  | 1                               | 53   | 55                     | All of the above                                 | D039SA |
| 4 | 4469 | C | Which Fire Control Plan symbol represents a fire alarm panel?   | 68                              | 58   | 37                     | 30   | D039SA |
| 4 | 4470 | A | Which Fire Control Plan symbol is NOT part of a fixed sprinkler system?   | 37                              | 38   | 39                     | 40   | D039SA |
| 4 | 4471 | D | A severe storm threatens the COASTAL DRILLER, and a decision is made to evacuate the unit. If practical, all non-essential personnel should be off the unit in advance of the storm's predicted arrival by _____. | 12 hours                        | 24 hours                                       | 36 hours               | 48 hours   |        |
| 4 | 4472 | B | Which Fire Control Plan symbol represents a space protected by foam?  | 17                              | 16   | 15                     | 13   | D039SA |

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|---|------|---|---|--|--|--|--|---------|
| 4 | 4473 | D | Which Fire Control Plan symbol represents a fire pump?  | 19   | 21   | 22   | 54   | D039SA  |
| 4 | 4474 | C | Which Fire Control Plan symbol represents a heat detector?  | 18   | 31   | 49   | 63   | D039SA  |
| 4 | 4475 | D | While the COASTAL DRILLER is elevated, the out-of-level alarm indicates that hull inclination exceeds 0.3°. What should you do?   | Raise the high corner.                               | Raise the low corner.                          | Raise unit to proper air gap and inspect for damage. | Confirm operation of out-of-level alarm.       |         |
| 4 | 4476 | A | Which Fire Control Plan symbol represents an emergency fire pump?   | 19   | 21   | 22   | 54   | D039SA  |
| 4 | 4477 | B | If you see someone fall overboard from a MODU, you should _____.  | immediately jump in the water to help the individual | call for help and keep the individual in sight | run to the radio room to send an emergency message   | go to the control room for the distress flares |         |
| 4 | 4478 | B | Which Fire Control Plan symbol represents a fire station?   | 1  | 30   | 51   | 58   | D039SA  |
| 4 | 4479 | B | Which Fire Control Plan symbol represents the direction of primary means of escape?   | 58   | 61   | 62   | 63   | D039SA  |
| 4 | 4480 | C | Which Fire Control Plan symbol represents an emergency generator?   | 20   | 32   | 67   | 68   | D039SA  |
| 4 | 4481 | B | The COASTAL DRILLER, with a draft of 10 feet 3 inches in seawater, has a displacement of _____.   | 13,011 kips  | 13,336 kips                                    | 13,445 kips  | 14,637 kips                                    |         |
| 4 | 4482 | D | Which Fire Control Plan symbol does NOT contain personal protective equipment?  | 60   | 59   | 58   | 30   | D039SA  |
| 4 | 4483 | A | The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft in sea water at the forward draft marks is observed to be 8.0 feet. The KML is _____.   | 286.27 feet  | 299.09 feet                                    | 316.67 feet  | 355.42 feet                                    |         |
| 4 | 4484 | B | The SS AMERICAN MARINER has on board 6285 tons of cargo with an LCG-FP of 272.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.2 feet                                    | LCG-FP 272.1 feet                              | LCG-FP 273.6 feet                                    | LCG-FP 274.6 feet                              | ST-0162 |
| 4 | 4485 | A | The COASTAL DRILLER has a trim of 2.13 feet by the stern. The draft in sea water at the forward draft marks is observed to be 8.0 feet. The KMT is _____.   | 153.73 feet  | 160.42 feet                                    | 179.41 feet  | 203.97 feet                                    |         |
| 4 | 4486 | B | The international body responsible for drafting the convention prohibiting marine pollution (MARPOL) is the _____.  | Maritime Advisory Council                            | International Maritime Organization            | International Association of Shipping                | Association of Seafaring Nations               |         |

|   |      |   |   |                       |                     |                  |                                  |        |
|---|------|---|---|-----------------------|---------------------|------------------|----------------------------------|--------|
| 4 | 4487 | C | Weights added or discharged at the center of flotation on the COASTAL DRILLER while floating will change the _____.       | list                  | trim                | true mean draft  | TPI                              |        |
| 4 | 4488 | B | The approved symbol (67) for fire control plans designates a _____.   | emergency switchboard | emergency generator | gas detector     | inert gas installation           | D039SA |
| 4 | 4490 | D | On the vessel's fire control plan, which symbol helps to control the spread of fire _____?                                | 68                    | 34                  | 33               | 32                               | D039SA |
| 4 | 4491 | D | The COASTAL DRILLER, with a displacement of 13,553 kips, has a draft of _____.  | 10.5 feet             | 11 feet 6 inches    | 11 feet 2 inches | 10 feet 5 inches                 |        |
| 4 | 4492 | A | On the vessel's fire control plan, which symbol represents a fire damper?   | 32                    | 33                  | 34               | 53                               | D039SA |
| 4 | 4493 | A | The COASTAL DRILLER, with a draft of 10 feet 6 inches, has a displacement of _____.                                       | 13,662 kips           | 13,553 kips         | 13,011 kips      | 12,252 kips                      |        |
| 4 | 4494 | B | Which fire control plan symbol represents a dry chemical delivery method for small scale fires?                           | 16                    | 47                  | 26               | 48                               | D039SA |
| 4 | 4495 | D | The COASTAL DRILLER is in transit at a draft of 10.5 feet. It discharges 216.43 kips of weight. What is the new draft?    | 10.7 feet             | 10.3 feet           | 10 feet 8 inches | 10 feet 4 inches                 |        |
| 4 | 4496 | A | Fire control symbol (37) for fire control plans designates a _____.   | a fire alarm panel    | diving operations   | a fire station   | high expansion foam supply trunk | D039SA |
| 4 | 4497 | D | The COASTAL DRILLER is in transit at the load line draft. It discharges 279.93 kips of weight. The new draft is _____.    | 10.88 feet            | 10.8 feet           | 10.0 feet        | 10 feet 8 inches                 |        |
| 4 | 4498 | C | Which Fire Control Plan symbol represents a bilge pump?   | 54                    | 22                  | 21               | 19                               | D039SA |
| 4 | 4500 | A | Which Fire Control Plan symbol represents the best means to extinguish a Class Alpha fire?                                | 23                    | 16                  | 12               | 7                                | D039SA |
| 4 | 4501 | B | The COASTAL DRILLER is in transit at a draft of 10.0 feet. It loads 216.43 kips of weight aboard. What is the new draft?  | 10.2 feet             | 10 feet 2 inches    | 10 feet 3 inches | 10 feet 4 inches                 |        |
| 4 | 4502 | D | Which Fire Control Plan symbol represents the best means to extinguish a LARGE Class Bravo fire?                          | 44                    | 39                  | 36               | 14                               | D039SA |
| 4 | 4503 | C | The COASTAL DRILLER has a change of trim by the head of 2.0 feet. What is the change of draft at the forward draft marks? | 0.66 feet             | 1.00 feet           | 1.33 feet        | 2.00 feet                        |        |
| 4 | 4504 | C | Which Fire Control Plan symbol represents a fire main with fire valves?   | 17                    | 34                  | 51               | 56                               | D039SA |



|   |      |   |  |                         |                 |                  |                  |        |
|---|------|---|--|-------------------------|-----------------|------------------|------------------|--------|
| 4 | 4505 | B | The height of the longitudinal metacenter of the COASTAL DRILLER at a displacement of 13,810 kips is _____.            | 256.51 feet             | 255.11 feet     | 254.60 feet      | 253.20 feet      |        |
| 4 | 4507 | B | The height of the transverse metacenter of the COASTAL DRILLER at a displacement of 13,011 kips is _____.              | 144.21 feet             | 145.33 feet     | 267.98 feet      | 270.13 feet      |        |
| 4 | 4508 | A | Which Fire Control Plan symbol represents equipment NOT to be found immediately outside the engine room?               | 12                      | 24              | 43               | 57               | D039SA |
| 4 | 4510 | B | Which Fire Control Plan symbol represents equipment that is MOST likely to be found in the ship's galley?              | 31                      | 49              | 55               | 68               | D039SA |
| 4 | 4511 | C | The height of the transverse metacenter of the Coastal Driller at a displacement of 13,050 kips is _____.              | 143.81 feet             | 144.61 feet     | 144.93 feet      | 145.73 feet      |        |
| 4 | 4512 | D | Which Fire Control Plan symbol represents a NON-portable extinguisher?   | 57                      | 36              | 25               | 14               | D039SA |
| 4 | 4513 | C | When the COASTAL DRILLER is level at a draft of 10.5 feet, what is the value of the LCG?                               | 00.0 feet               | 111.35 feet     | 119.44 feet      | 120.59 feet      |        |
| 4 | 4514 | D | Which Fire Control Plan symbol is not part of the ship's foam system?  | 65                      | 50              | 16               | 3                | D039SA |
| 4 | 4515 | C | A survival craft being used to pick up a person who has fallen overboard from a MODU should approach the person _____. | at a high rate of speed | under oars      | against the wind | with the wind    |        |
| 4 | 4516 | A | Which Fire Control Plan symbol(s) represent part of the vessel's ventilation system?                                   | 69                      | 34              | 18               | All of the above | D039SA |
| 4 | 4517 | C | The longitudinal location of the center of flotation for the COASTAL DRILLER has a value of _____.                     | 207.33 feet AF0         | 160.33 feet AF0 | 119.44 feet AF0  | 38.33 feet AF0   |        |
| 4 | 4518 | C | Which Fire Control Plan symbol signifies equipment you would use if your fire pump(s) failed?                          | 22                      | 21              | 19               | 54               | D039SA |
| 4 | 4521 | D | While in transit at a draft of 10.5 feet, the COASTAL DRILLER has a KGT of 60.0 feet. What is the GMT?                 | 139.92 feet             | 138.89 feet     | 79.92 feet       | 78.89 feet       |        |
| 4 | 4523 | D | The capacity of the COASTAL DRILLER preload tanks is _____.  | 21,297.0 kips           | 11,777.2 kips   | 9,753.7 kips     | 8,708.0 kips     |        |

|   |      |   |   |                   |                   |                   |                   |         |
|---|------|---|---|-------------------|-------------------|-------------------|-------------------|---------|
| 4 | 4525 | D | Preload tank 22B on the COASTAL DRILLER contains 5.0 feet of preload. It is decided to complete filling the tank. What is the TCG of the added liquid?  | 65.60 feet        | 65.74 feet        | 65.77 feet        | 65.83 feet        |         |
| 4 | 4527 | A | The sounding for Drill Water Tank #18 for the Coastal Driller is 1.25 feet. It is decided to fill the tank. What is the vertical center of gravity for the added liquid?  | 3.13 feet         | 2.50 feet         | 1.87 feet         | 0.63 foot         |         |
| 4 | 4533 | C | The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What are the longitudinal moments for this mud?  | 16,031 ft-kips    | 16,342 ft-kips    | 20,387 ft-kips    | 20,781 ft-kips    |         |
| 4 | 4534 | A | The SS AMERICAN MARINER has on board 5577 tons of cargo with an LCG-FP of 275.55 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.2 feet | LCG-FP 272.1 feet | LCG-FP 273.6 feet | LCG-FP 274.6 feet | ST-0163 |
| 4 | 4535 | C | The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What are the transverse moments for this mud?  | 896 ft-kips       | 913 ft-kips       | 1139 ft-kips      | 1161 ft-kips      |         |
| 4 | 4537 | B | What is the weight in long tons of 180 barrels of 15 pound per gallon drilling mud?   | 522.67 long tons  | 50.63 long tons   | 34.84 long tons   | 3.38 long tons    |         |
| 4 | 4541 | B | What is the weight in drill water tank #1 for the COASTAL DRILLER, if the sounding in the tank is 8 feet 2 inches?  | 202.16 kips       | 204.60 kips       | 206.87 kips       | 209.34 kips       |         |
| 4 | 4543 | C | What is the sounding in drill water tank #1 for the COASTAL DRILLER, if the weight of drill water in the tank is 388.32 kips?   | 14.5 feet         | 15.0 feet         | 15.5 feet         | 16.0 feet         |         |
| 4 | 4545 | C | What is the VCG of the drill water in the COASTAL DRILLER's #1 Drill Water Tank, if the weight in the tank is 388.32 kips?  | 7.25 feet         | 7.50 feet         | 7.75 feet         | 8.00 feet         |         |
| 4 | 4546 | D | Fire dampers prevent the spread of fire by _____.   | direct contact    | radiation         | conduction        | convection        |         |
| 4 | 4547 | A | What are the vertical moments for 14.0 feet of drill water in the COASTAL DRILLER's #1 drill water tank?  | 2.455 ft-kips     | 2.543 ft-kips     | 2.725 ft-kips     | 2.997 ft-kips     |         |
| 4 | 4551 | B | What are the transverse moments for 10.5 feet of sea water in preload tank #2 for the COASTAL DRILLER?  | 15,044 kips       | 12,123 kips       | 5,468 kips        | 2,732 kips        |         |

|   |      |   |   |                                 |   |   |                                     |  |
|---|------|---|---|---------------------------------|---|---|-------------------------------------|--|
| 4 | 4553 | D | What longitudinal moments are created when 379.97 kips of fresh water is placed in the COASTAL DRILLER's #1 drill water tank?   | 1,729 ft-kips                   | 1,739 ft-kips                               | 1,749 ft-kips   | 1,759 ft-kips                       |  |
| 4 | 4555 | B | The COASTAL DRILLER at a draft of 10.5 feet, transfers a portion of the on board liquids from full drill water tank #23 to empty drill water tank #24. What is the change in the free surface correction? | 0.69 foot                       | 0.44 foot                                   | 0.34 foot   | 0.22 foot                           |  |
| 4 | 4557 | B | The sounding level of 12 lb. per gallon mud in mud pit 1S of the COASTAL DRILLER is 5.5 feet. What is the weight of the mud?  | 104.53 kips                     | 114.37 kips                                 | 116.45 kips   | 127.41 kips                         |  |
| 4 | 4561 | C | The sounding level of 17 lb. per gallon mud in mud pit 2S of the COASTAL DRILLER is 7.75 feet. What is the weight of the mud?   | 153.16 kips                     | 156.13 kips                                 | 194.77 kips   | 198.54 kips                         |  |
| 4 | 4563 | B | While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 200 kips are discharged from 60 feet AF0 and 30 feet to starboard of the centerline. What is the starboard leg reaction?     | 4,271 kips                      | 5,393 kips                                  | 5,410 kips  | 5,571 kips                          |  |
| 4 | 4565 | C | The COASTAL DRILLER, elevated in 200 feet of water with 2 knots current, 30 foot waves, and wind speeds of 60 knots may continue drilling if the maximum leg reaction is less than _____.                 | 5,700 kips                      | 5,790 kips                                  | 5,870 kips  | 5,990 kips                          |  |
| 4 | 4567 | D | When elevated, placing the LCG and TCG at the leg centroid provides _____.  | reduced scour rates             | higher variable loading during preloading   | higher drilling loads   | equal leg reactions                 |  |
| 4 | 4571 | A | The COASTAL DRILLER, while elevated in 200 feet of water, has 2 knots of current, 50 knots of wind, and 30 foot seas. What is the maximum leg reaction for drilling?                                      | 6,090 kips                      | 5,980 kips                                  | 5,540 kips  | 5,320 kips                          |  |
| 4 | 4572 | B | You are underway at sea. A fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.   | remain on course and hold speed | change course and put the stern to the wind | change course to put the wind on either beam and increase speed | remain on course but decrease speed |  |
| 4 | 4573 | A | The total leg load reactions on an independent leg, self-elevating unit include static and _____.   | environmental loading           | variable loading                            | fixed loading   | basic loading                       |  |

|   |      |   |   |                       |   |  |                   |         |
|---|------|---|---|-----------------------|---|--|-------------------|---------|
| 4 | 4574 | C | The SS AMERICAN MARINER has on board 4824 tons of cargo with an LCG-FP of 277.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 267.7 feet     | LCG-FP 268.4 feet   | LCG-FP 269.2 feet                      | LCG-FP 270.6 feet | ST-0164 |
| 4 | 4575 | C | What precaution should be taken when testing a line throwing gun?   | Wear asbestos gloves. | Fire it at an angle of approximately 90 degrees to the horizon. | Never remove the line from the rocket. | All of the above  |         |
| 4 | 4577 | B | When the COASTAL DRILLER is properly preloaded, each of the leg reactions should be _____.  | 7,200 kips            | 7,099 kips  | 4,720 kips                             | 3,381 kips        |         |
| 4 | 4583 | C | The COASTAL DRILLER, elevated in 150 feet of water with 0 knots current, 10 foot waves, and wind speeds of 70 knots may continue drilling if the maximum leg reaction is less than _____.   | 5,940 kips            | 6,020 kips  | 6,080 kips                             | 6,520 kips        |         |
| 4 | 4587 | C | The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 feet to port of the centerline. What is the bow leg reaction?   | 4,737 kips            | 4,916 kips  | 5,063 kips                             | 5,145 kips        |         |
| 4 | 4591 | C | The COASTAL DRILLER, elevated in 100 feet of water with 0 knots current, 30 foot waves, and wind speeds of 50 knots may continue drilling if the maximum leg reaction is less than _____.   | 6,180 kips            | 6,320 kips  | 6,440 kips                             | 6,520 kips        |         |
| 4 | 4593 | C | The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 feet to port of the centerline. What is the port leg reaction?  | 5,063 kips            | 5,104 kips  | 5,233 kips                             | 5,345 kips        |         |
| 4 | 4594 | B | As shown, a frapping line is indicated by number _____.   | 1                     | 2   | 3                                      | 4                 | D016SA  |
| 4 | 4595 | C | The COASTAL DRILLER, while drilling, has a total weight of 15,400 kips. The LCG is 120.00 feet AF0, and the TCG is -0.5 foot to port of the centerline. What is the starboard leg reaction?   | 4,956 kips            | 5,063 kips  | 5,104 kips                             | 5,233 kips        |         |

|   |      |   |  |  |                                   |                                |  |
|---|------|---|--|--|-----------------------------------|--------------------------------|--|
| 4 | 4597 | C | While loaded as shown in the COASTAL DRILLER Sample Load Form #3 (Drilling), 236 kips are discharged from 80 feet AFO and 19.79 feet to port of the centerline. What is the resulting starboard leg reaction?  | 4,281 kips   | 5,382 kips                        | 5,459 kips                     | 5,537 kips                                   |
| 4 | 4601 | C | The COASTAL DRILLER is drilling while weighing 15,436 kips. LM are 2,006,680 ft-kips, and TM are - 7,718 ft-kips. What is the port leg reaction?   | 3,806 kips   | 5,751 kips                        | 5,879 kips                     | 7,549 kips                                   |
| 4 | 4603 | C | The COASTAL DRILLER is elevated while preparing for the passage of a severe storm. With ideal loading, the static loading on each of the three legs would be 4,715 kips. However, the LCG is 121 feet AFO and TCG is 0.5 foot to starboard of the centerline. By how many kips does the starboard leg reaction exceed the ideal loading? | 00 kips  | 32 kips                           | 149 kips                       | 181 kips                                     |
| 4 | 4605 | B | How many independent bilge systems is the COASTAL DRILLER equipped with?   | 1  | 2                                 | 3                              | 4  |
| 4 | 4607 | B | On the COASTAL DRILLER, the level of water in each of two pump bilge pits is monitored by hydrostatic alarm switches connected to a remote panel located in the _____.   | OIM's quarters   | OIM's office                      | control house                  | SCR room                                     |
| 4 | 4611 | C | On the COASTAL DRILLER, the level of water in each of two pump bilge pits is monitored by _____.   | visual sight gages   | low and high level alarms         | hydrostatic alarm switches     | OSS units (overflow sequence selector units) |
| 4 | 4615 | D | On the machinery deck of the COASTAL DRILLER, each watertight compartment has at least one sump valve that can be remotely operated from the _____.  | OIM's quarters   | OIM's office                      | control house                  | bilge pit                                    |
| 4 | 4616 | A | You are scheduled to load 4700 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.   | 19'-00"  | 19'-04"                           | 19'-09"                        | 20'-01"                                      |
| 4 | 4617 | D | On the COASTAL DRILLER, in case one of the two bilge pits is flooded, the other can operate through a(n)_____.   | six-inch line connected to the independent isolation valves to the sea chest | separate bilge discharge manifold | independent scavenger manifold | crossover arrangement                        |

|   |      |   |  |                                    |                                    |                                    |                                    |        |
|---|------|---|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------|
| 4 | 4621 | C | On the COASTAL DRILLER, the start/stop station for the bilge pumps is located _____.   | in the OIM's office                | in the control house               | near the bilge pits                | in the MCC                         |        |
| 4 | 4622 | B | The SS AMERICAN MARINER has drafts of: FWD 26'-04", AFT 28'-08". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 101 tons of seawater.       | FWD 27'-00.6, AFT 28'-01.7"        | FWD 27'-01.2", AFT 28'-02.5"       | FWD 27'-01.8", AFT 28'-03.1"       | FWD 27'-02.4", AFT 28'-03.7"       |        |
| 4 | 4623 | A | On the COASTAL DRILLER, the bilge discharge is normally through the _____.   | overboard discharge                | dump valves                        | skimmer tank                       | sump valves                        |        |
| 4 | 4625 | A | The order to abandon a MODU should only be given by the _____.   | Offshore Installation Manager      | Barge Engineer                     | Ballast Control Operator           | Rig Safety Supervisor              |        |
| 4 | 4627 | D | On the COASTAL DRILLER, except when pumping from a tank, the bilge system valves should be _____.  | cracked open                       | in the check-stop position         | opened for draining                | closed                             |        |
| 4 | 4631 | C | On the COASTAL DRILLER, in case the bilge discharge is oily, the bilge water should be discharged through the _____.   | overboard discharge                | dump valves                        | skimmer tank                       | sump valves                        |        |
| 4 | 4633 | C | On the COASTAL DRILLER, when afloat, oily bilge discharge should be pumped through the _____.  | overboard discharge                | dump valves                        | skimmer tanks                      | raw water header                   |        |
| 4 | 4635 | D | How much drill water is required for transfer between drill water tanks #25 and #26 in order to correct the list of the COASTAL DRILLER with total transverse moments of -6,800 ft-kips?                       | 200 kips from tank #26 to tank #25 | 200 kips from tank #25 to tank #26 | 100 kips from tank #26 to tank #25 | 100 kips from tank #25 to tank #26 |        |
| 4 | 4636 | C | What will be released by pulling on line number 5?   | Frapping line                      | Gripes                             | Tricing pendant                    | Lifeboat                           | D012SA |
| 4 | 4637 | B | How much drill water should be transferred from tanks #23 and #24 to tank #1 to level the COASTAL DRILLER, in transit at a draft of 10 feet 6 inches, if the total longitudinal moments are 1,700,000 ft-kips? | 438 kips                           | 451 kips                           | 521 kips                           | 537 kips                           |        |
| 4 | 4641 | C | What is the change in longitudinal moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #1?                                 | 15,565 foot-kips increase          | 7,585 foot-kips increase           | 15,565 foot-kips decrease          | 16,041 foot-kips decrease          |        |
| 4 | 4643 | B | What is the change in longitudinal moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?                                 | 7,990 foot-kips increase           | 7,990 foot-kips decrease           | 8,502 foot-kips decrease           | 16,041 foot-kips decrease          |        |

|   |      |   |   |                   |                    |                       |                                   |         |
|---|------|---|---|-------------------|--------------------|-----------------------|-----------------------------------|---------|
| 4 | 4644 | D | The SS AMERICAN MARINER has on board 7240 tons of cargo with an LCG-FP of 273.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.2 feet | LCG-FP 272.1 feet  | LCG-FP 273.6 feet     | LCG-FP 275.3 feet                 | ST-0165 |
| 4 | 4645 | C | What is the change in the vertical moments (excluding free surface effects) for the COASTAL DRILLER if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?                             | 253 foot-kips     | 56 foot-kips       | -253 foot-kips        | -411 foot-kips                    |         |
| 4 | 4647 | A | What is the increase in transverse moments for the Coastal Driller if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?  | 4783 foot-kips    | 3446 foot-kips     | 2109 foot-kips        | 1234 foot-kips                    |         |
| 4 | 4651 | B | If you wear extra clothing when entering the water after abandoning a MODU it will _____.   | weigh you down    | preserve body heat | reduce your body heat | make it more difficult to breathe |         |
| 4 | 4652 | A | The SS AMERICAN MARINER has on board 3245 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 267.7 feet | LCG-FP 268.4 feet  | LCG-FP 269.2 feet     | LCG-FP 270.6 feet                 | ST-0166 |
| 4 | 4653 | B | What is the increase in transverse free surface moments for the COASTAL DRILLER if 2.0 feet of drill water is transferred from a full drill water tank #23 to an empty drill water tank #6?   | 9,172 foot-kips   | 3,914 foot-kips    | 2,109 foot-kips       | 932 foot-kips                     |         |
| 4 | 4655 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the drill water in drill water tanks #6 and #25 are discharged, what is the new draft?   | 8.26 feet         | 10.66 feet         | 10.88 feet            | 11.10 feet                        |         |
| 4 | 4657 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the four bulk tanks are back-loaded to a supply boat, what would be the new draft?   | 7.16 feet         | 10.31 feet         | 10.57 feet            | 11.19 feet                        |         |
| 4 | 4658 | C | You are scheduled to load 3900 tons of cargo, 45 tons of crew effects and stores and 259 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.                         | 18'-06"           | 18'-02"            | 17'-11"               | 17'-08"                           |         |

|   |      |   |   |   |                                    |  |  |  |
|---|------|---|---|---|------------------------------------|--|--|--|
| 4 | 4661 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the #1 drill water tank are discharged, what would be the new LCG?   | 118.46 feet AF0                           | 119.44 feet AF0                    | 119.98 feet AF0                        | 120.42 feet AF0                        |  |
| 4 | 4662 | D | Most covered lifeboats will right themselves after capsizing if the _____.  | lower ballast tanks are filled with water | sea anchor is deployed to windward | fuel tanks are not less than half full | passengers are strapped to their seats |  |
| 4 | 4663 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of the #7 drill water tank are discharged, what would be the new TCG?   | -0.15 foot                                | 0.00 foot                          | 0.15 foot                              | 0.29 foot                              |  |
| 4 | 4665 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new VCG?   | 47.21 feet                                | 47.69 feet                         | 48.41 feet                             | 49.16 feet                             |  |
| 4 | 4667 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new height of the longitudinal metacenter?                                     | 249.47 feet                               | 250.16 feet                        | 252.92 feet                            | 253.90 feet                            |  |
| 4 | 4673 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what is the new height of the center of gravity corrected for longitudinal free surface effects? | 48.41 feet                                | 49.16 feet                         | 50.79 feet                             | 51.40 feet                             |  |
| 4 | 4677 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what is the new height of the center of gravity corrected for transverse free surface effects?   | 47.49 feet                                | 49.16 feet                         | 50.82 feet                             | 50.93 feet                             |  |
| 4 | 4681 | C | The COASTAL DRILLER is in transit loaded as shown in the Sample Load Form #1 (Rig Move). What would be the new KGT if, during the move, 170.9 kips of fuel oil is consumed from Diesel Oil Tanks #13 and #14?                                 | 48.98 feet                                | 50.08 feet                         | 50.70 feet                             | 51.21 feet                             |  |
| 4 | 4683 | D | What is the change in longitudinal moments for the Coastal Driller if 2.5 feet of drill water is discharged from drill water tank #23?  | 1,671 ft-kips                             | -161 ft-kips                       | -4,708 ft-kips                         | -20,052 ft-kips                        |  |



|   |      |   |  |  |  |                                   |                                      |  |
|---|------|---|--|--|--|-----------------------------------|--------------------------------------|--|
| 4 | 4685 | A | What is the change in transverse moments for the Coastal Driller if 2.5 feet of drill water is discharged from drill water tank #23?   | 1,671 ft-kips  | -161 ft-kips   | -1,800 ft-kips                    | -2,982 ft-kips                       |  |
| 4 | 4687 | C | What is the decrease in vertical moments for the Coastal Driller if 2.5 feet of drill water is discharged from a full drill water tank #23?  | 3,464 ft-kips  | 2,982 ft-kips  | 482 ft-kips                       | 161 ft-kips                          |  |
| 4 | 4691 | B | The COASTAL DRILLER, with no list, is at a true mean draft of 10 feet and 10 inches. LM is 1,699,463 ft-kips. Using only tanks #1, #25, and #26, how many kips of drill water must be transferred to level the jack-up?  | Transfer 106.2 kips aft from #1 to #25 and #26         | Transfer 53.1 kips each from #25 and #26 forward to #1 | Transfer 612 kips from #25 to #26 | Vessel is level; no need to transfer |  |
| 4 | 4693 | D | The COASTAL DRILLER, with no trim, is at a true mean draft of 10 feet and 10 inches. TM is -6,800 ft-kips. Using only tanks #1, #25, and #26, how many kips of drill water must be transferred to level the jack-up?   | Transfer 53.1 kips each from #25 and #26 forward to #1 | Transfer 100 kips from #26 to #25                      | Transfer 200 kips from #25 to #26 | Transfer 100 kips from #25 to #26    |  |
| 4 | 4697 | D | A tank with a volume of 2,000 cubic feet is pressed with fresh water weighing 62.4 pounds per cubic foot. What is the weight, in kips, of the liquid?  | 54.4 kips  | 64.7 kips  | 95.8 kips                         | 124.8 kips                           |  |
| 4 | 4701 | D | After you activate your emergency position indicating radio beacon, you should _____.  | turn it off for five minutes every half-hour           | turn it off and on at five-minute intervals            | turn it off during daylight hours | leave it on continuously             |  |
| 4 | 4703 | D | A jack-up 210 feet in length is level during transit. The LCF is 140 feet aft of the bow. How much weight should be applied at the stern to re-level the jack-up if 75 kips is applied at the bow?   | 50 kips  | 75 kips  | 100 kips                          | 150 kips                             |  |
| 4 | 4705 | C | What is the weight of 100 barrels of 17 pound per gallon drilling mud?   | 24.9 kips  | 41.5 kips  | 71.4 kips                         | 93.0 kips                            |  |
| 4 | 4706 | B | You are making a heavy lift with the jumbo boom. Your vessel displaces 7940 T. The 45-ton weight is on the pier and its center is 60' to starboard of the centerline. The head of the boom is 110' above the base line and the center of gravity of the lift when stowed on deck will be 50' above the base line. As the jumbo boom takes the strain the ship lists to 4.5°. What is the GM with the cargo stowed? | 4.82   | 4.64   | 4.30                              | 3.97                                 |  |

|   |      |   |  |  |  |  |  |
|---|------|---|--|--|--|--|--|
| 4 | 4707 | A | While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 50 kips of tubulars are discharged from the cantilever starboard pipe racks. What is the change in the vessel's LCG?                | 0.23 foot forward                              | 0.40 foot forward  | 0.64 foot forward                      | 1.02 feet forward                                      |
| 4 | 4711 | A | While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), 50 kips of tubulars are discharged from the cantilever starboard pipe racks. What is the change in the vessel's TCG?                | 0.048 foot port                                | 0.048 foot starboard                                     | 1.020 feet port                        | 1.020 feet starboard                                   |
| 4 | 4713 | C | When the COASTAL DRILLER is loaded as shown in the sample load form #3 (drilling), the hook load is placed in the pipe racks. What would be the new variable load?   | 2,381.0 kips                                   | 3,381.0 kips   | 3,658.8 kips                           | 4,381.0 kips   |
| 4 | 4715 | D | Sea water remaining in the preload tanks of the COASTAL DRILLER after the preload has been dumped shall be entered in the load form as _____.  | basic load                                     | fixed load   | preload                                | liquid variable load                                   |
| 4 | 4716 | D | What is the purpose of tricing pendants?   | They have the same function as frapping lines. | They are safety lines for personnel inside the lifeboat. | They slow the descent of the lifeboat. | They hold the lifeboat alongside the embarkation deck. |
| 4 | 4717 | C | The COASTAL DRILLER is loaded as shown in the sample load form #2 (preload). All of the preload is dumped with the exception of 50 kips in preload tank #28. What is the new LCG?                                | 119.11 feet AF0                                | 119.44 feet AF0  | 119.68 feet AF0                        | 120.11 feet AF0  |
| 4 | 4718 | B | The Sailing Plan, required by vessels participating in AMVER, must be sent _____.  | prior to departure                             | within a few hours before or after departure             | within 12 hours of departure           | within 24 hours of departure                           |
| 4 | 4723 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new trim angle if 500 kips of weight are shifted aft 60 feet?  | 2.02 degrees by the stern                      | 1.51 degrees by the stern                                | 0.98 degrees by the stern              | 0.61 degrees by the stern                              |
| 4 | 4725 | B | The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Rig Move). What would be the new sum of vertical moments for the liquid variables if the entire contents of tank #20 are transferred to tank #13? | 2,365 ft-kips                                  | 2,244 ft-kips  | 2,195 ft-kips                          | 170 ft-kips  |

|   |      |   |   |   |   |                                       |  |        |
|---|------|---|---|---|---|---------------------------------------|--|--------|
| 4 | 4727 | C | The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Drilling). What would be the new sum of longitudinal moments for the liquid variables if the entire contents of tank #19 are transferred to tank #13?  | 12,344 ft-kips                                      | 173,493 ft-kips                         | 181,174 ft-kips                       | 1,929,523 ft-kips                                  |        |
| 4 | 4733 | D | In the COASTAL DRILLER, LCG is obtained from the sum of the longitudinal moments by _____.  | adding the sum of the weights                       | subtracting the sum of the weights      | multiplying by the sum of the weights | dividing by the sum of the weights                 |        |
| 4 | 4734 | C | Seawater may be used for drinking _____.  | if gathered during or immediately after a hard rain | at a maximum rate of two ounces per day | under no conditions                   | after mixing with an equal quantity of fresh water |        |
| 4 | 4735 | D | In the COASTAL DRILLER, TCG is obtained from the sum of the transverse moments by _____.  | adding the sum of the weights                       | subtracting the sum of the weights      | multiplying by the sum of the weights | dividing by the sum of the weights                 |        |
| 4 | 4737 | D | In the COASTAL DRILLER, VCG is obtained from the sum of the vertical moments by _____.  | adding the sum of the weights                       | subtracting the sum of the weights      | multiplying by the sum of the weights | dividing by the sum of the weights                 |        |
| 4 | 4741 | D | The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips. What is the weight of the missing load?  | 46 kips   | 84 kips                                 | 189 kips                              | 217 kips   |        |
| 4 | 4742 | C | You are scheduled to load 4700 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.   | 19'-00"   | 19'-03"                                 | 19'-07"                               | 20'-01"  |        |
| 4 | 4743 | B | The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips, total longitudinal moments 1,613,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the longitudinal location of the missing load? | 46 feet AFO   | 84 feet AFO                             | 189 feet AFO                          | 217 feet AFO                                       |        |
| 4 | 4744 | D | You operate the lever shown when the lifeboat is _____.   | in the secured position                             | at the embarkation deck                 | being lowered to sea level            | waterborne   | D013SA |
| 4 | 4745 | C | While loaded as shown in the COASTAL DRILLER sample load form #3 (drilling), all of the casing is discharged. What is the change in LCG?  | 1.98 feet forward                                   | 1.95 feet forward                       | 0.02 foot forward                     | 0.02 foot aft                                      |        |

|   |      |   |   |                                |                                     |                                |                                     |         |
|---|------|---|---|--------------------------------|-------------------------------------|--------------------------------|-------------------------------------|---------|
| 4 | 4746 | B | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 12'-07", AFT 16'-01". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.   | 1.30 feet                      | 1.07 foot                           | 0.96 foot                      | 0.82 foot                           | ST-0167 |
| 4 | 4747 | B | The COASTAL DRILLER is observed to be level at a draft of 10 feet 6 inches. At the same time, the calculated load form shows the displacement to be 13,445 kips, total longitudinal moments 1,613,466 foot-kips, and total transverse moments -10,000 foot-kips. What is the transverse location of the missing load? | 46 feet port of the centerline | 46 feet starboard of the centerline | 84 feet port of the centerline | 84 feet starboard of the centerline |         |
| 4 | 4748 | B | The SS AMERICAN MARINER has on board 3885 tons of cargo with an LCG-FP of 278.45 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.   | LCG-FP 267.7 feet              | LCG-FP 268.4 feet                   | LCG-FP 269.2 feet              | LCG-FP 270.6 feet                   | ST-0168 |
| 4 | 4751 | A | Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #20. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in longitudinal moments with this transfer?                                | 565 ft-kips                    | 900 ft-kips                         | 2603 ft-kips                   | 3168 ft-kips                        |         |
| 4 | 4753 | D | Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in transverse moments with this transfer?                                  | 56 ft-kips                     | 979 ft-kips                         | 1035 ft-kips                   | 2010 ft-kips                        |         |
| 4 | 4755 | C | Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in vertical moments with this transfer?                                    | 81 ft-kips increase            | 31 ft-kips increase                 | 26 ft-kips decrease            | 47 ft-kips decrease                 |         |

|   |      |   |  |                              |                              |                              |                              |  |
|---|------|---|--|------------------------------|------------------------------|------------------------------|------------------------------|--|
| 4 | 4757 | C | Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in longitudinal free surface moments? | 1492 ft-kips increase        | 1034 ft-kips increase        | 674 ft-kips increase         | 404 ft-kips increase         |  |
| 4 | 4761 | A | Because there is a possibility of fuel oil being discharged overboard from a full fuel oil tank, it is decided to transfer 25 kips from tank #14 to tank #13. See COASTAL DRILLER Sample Load Form #1 (Rig Move). What would be the change in transverse free surface moments?   | 1492 ft-kips                 | 674 ft-kips                  | 404 ft-kips                  | 270 ft-kips                  |  |
| 4 | 4763 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of the port pipe rack are back-loaded to an offshore supply vessel, how much drill water would have to be transferred between tanks 6 and 7 to level the vessel in list?    | 47.2 kips tank #7 to tank #6 | 23.6 kips tank #7 to tank #6 | 23.6 kips tank #6 to tank #7 | 47.2 kips tank #6 to tank #7 |  |
| 4 | 4764 | B | You are scheduled to load 3700 tons of cargo, 45 tons of crew effects and stores and 427 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.   | 17'-01"                      | 17'-05"                      | 17'-10"                      | 18'-00"                      |  |
| 4 | 4767 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of the port pipe rack are back-loaded to an offshore supply vessel, how much drill water would have to be transferred from tank #1 to tank #26 to level the vessel in trim? | 62.7 kips                    | 64.4 kips                    | 111.4 kips                   | 114.9 kips                   |  |
| 4 | 4771 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what would be the new draft?  | 11.04 feet                   | 10.88 feet                   | 10.72 feet                   | 9.02 feet                    |  |
| 4 | 4773 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what longitudinal moment would have to be created to level the unit in trim at the new draft?         | 25,846 ft-kips               | 17,119 ft-kips               | 8,727 ft-kips                | 1,788 ft-kips                |  |

|   |      |   |  |   |  |  |  |         |
|---|------|---|--|---|--|--|--|---------|
| 4 | 4775 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the entire contents of bulk tanks #2 and #3 are back-loaded to an offshore supply vessel, what transverse moment would have to be created to level the unit in list at the new draft? | -3,604 ft-kips                                | -4 ft-kips   | 3,470 ft-kips                                  | 7,088 ft-kips                                  |         |
| 4 | 4777 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). While in field transit, the wind speeds are predicted to increase above 70 knots. What would be the new KGL if the legs are lowered to the recommended value?                            | 50.65 feet                                    | 37.00 feet   | 36.53 feet                                     | 13.65 feet                                     |         |
| 4 | 4778 | B | The SS AMERICAN MARINER has on board 5540 tons of cargo with an LCG-FP of 272.20 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo.                            | LCG-FP 266.5 feet                             | LCG-FP 267.8 feet  | LCG-FP 268.4 feet                              | LCG-FP 269.2 feet                              | ST-0169 |
| 4 | 4781 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). While in field transit, the wind speeds are predicted to increase above 70 knots. What would be the change in KGL if the legs are lowered to the recommended value?                      | 12.75 feet                                    | 13.65 feet   | 59.30 feet                                     | 60.50 feet                                     |         |
| 4 | 4783 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the margin on the maximum allowable KG if winds remain less than 70 knots?   | 0.00 feet                                     | 14.35 feet   | 14.82 feet                                     | 65.00 feet                                     |         |
| 4 | 4784 | A | If there's a fire aboard your vessel, you should FIRST _____.  | sound the alarm                               | notify the Coast Guard   | have passengers put on life preservers         | cut off air supply to the fire                 |         |
| 4 | 4785 | A | What should you do with your emergency position indicating radio beacon if you are in a liferaft in a storm?   | Bring it inside the liferaft and leave it on. | Bring it inside the liferaft and turn it off until the storm passes. | Leave it outside the liferaft and leave it on. | Leave it outside the liferaft but turn it off. |         |
| 4 | 4786 | B | Which number indicates the hydrostatic release?  | 3   | 6  | 7  | 10   | D015SA  |
| 4 | 4787 | A | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). How much more variable load in kips can be placed on the unit if winds increase to greater than 70 knots?  | 0 kips  | 200 kips   | 600 kips                                       | 1,000 kips                                     |         |

|   |      |   |   |             |             |             |             |  |
|---|------|---|---|-------------|-------------|-------------|-------------|--|
| 4 | 4791 | A | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). How much more variable load in kips can be placed on the unit if winds remain less than 70 knots?   | 0 kips      | 200 kips    | 600 kips    | 1,000 kips  |  |
| 4 | 4793 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the margin on the maximum allowable KG if winds increase to greater than 70 knots, and the TOC is changed to the recommended value? | 0.0 foot    | 1.0 foot    | 37.0 feet   | 38.0 feet   |  |
| 4 | 4795 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new LCG if the entire contents of drill water tanks 6 and 7 are discharged?   | 118.20 feet | 119.44 feet | 120.10 feet | 121.36 feet |  |
| 4 | 4797 | A | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new TCG if the entire contents of drill water tanks 6 and 7 are discharged?   | -0.23 foot  | 0.00 foot   | 0.23 foot   | 0.54 foot   |  |
| 4 | 4801 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new VCG if the entire contents of drill water tanks 6 and 7 are discharged?   | 38.00 feet  | 48.38 feet  | 49.16 feet  | 65.00 feet  |  |
| 4 | 4805 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new Longitudinal Free Surface Correction (FSCL) if the entire contents of drill water tanks 6 and 7 are discharged?             | 2.24 feet   | 2.14 feet   | 2.10 feet   | 1.63 feet   |  |
| 4 | 4807 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the new transverse free surface correction (FSCT) if the entire contents of drill water tanks 6 and 7 are discharged?               | 2.24 feet   | 2.14 feet   | 2.10 feet   | 1.67 feet   |  |
| 4 | 4811 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the value of KMT if the entire contents of drill water tanks 6 and 7 are discharged?  | 135.91 feet | 136.38 feet | 136.62 feet | 136.89 feet |  |

|   |      |   |   |  |   |   |  |         |
|---|------|---|---|--|---|---|--|---------|
| 4 | 4812 | A | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 0.54 ft  | 0.62 ft   | 0.80 ft   | 0.85 ft                                      | ST-0170 |
| 4 | 4813 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). What is the value of KML if the entire contents of drill water tanks 6 and 7 are discharged?  | 253.90 feet  | 253.24 feet   | 252.92 feet   | 252.24 feet                                  |         |
| 4 | 4814 | D | You are scheduled to load 3900 tons of cargo, 45 tons of crew effects and stores and 359 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.   | 19'-00"  | 18'-07"   | 18'-04"   | 18'-01"                                      |         |
| 4 | 4815 | D | What is the maximum amount of variables that may be taken aboard the COASTAL DRILLER while loaded as shown in the Sample Load Form #3 (drilling)?   | 1000 kips  | 681 kips  | 89 kips   | 0 kips                                       |         |
| 4 | 4833 | A | To keep injured survivors warm in the water after abandoning a MODU, they should _____.   | be placed in the middle of a small circle formed by the other survivors in the water | float on their backs with their arms extended for maximum exposure to the air | remove their life preservers and hold on to the uninjured survivors | sip seawater at intervals of fifteen minutes |         |
| 4 | 4837 | B | When the bypass valve of a self-contained breathing apparatus is opened, the mainline valve should be _____.  | completely open  | completely closed   | pinched to check the air flow                                       | immediately disconnected                     |         |
| 4 | 4847 | C | The rated operating time of a self-contained breathing device may be reduced in actual use because of _____.  | pressure differences in the atmosphere   | the length of the hose attached to the facepiece                              | the physical exertion of the person wearing the device              | spaces containing poisonous vapors           |         |
| 4 | 4851 | D | The self-contained breathing device should not be used in which situation?  | Oxygen deficient spaces  | Compartments containing poisonous vapors                                      | Fighting fires that produce heavy smoke                             | Underwater search                            |         |
| 4 | 5031 | A | For the purposes of the International Rules of the Road, a jack-up drilling rig under tow is considered to be a _____.  | vessel   | non-displacement vessel   | power-driven vessel   | limited vessel                               |         |
| 4 | 5033 | D | For the purposes of the International Rules of the Road, a non-self-propelled, semisubmersible drilling unit under tow is considered to be a _____.   | power-driven vessel  | limited vessel  | non-displacement vessel   | vessel                                       |         |



|   |      |   |   |   |  |   |  |            |
|---|------|---|---|---|--|---|--|------------|
| 4 | 5035 | A | When would a jack-up drilling rig be considered "underway" under the International Rules of the Road?   | When it is being towed to a new location                      | When it is elevated and taking on preload    | When it is elevated and engaged in drilling               | When it is moored to a dock in the shipyard                  |            |
| 4 | 5037 | A | Where will you find the requirements for the signals that must be sounded by a mobile offshore drilling unit that is being towed through an area of restricted visibility?                              | COLREGS   | MMS Rules                                    | SOLAS Convention  | Coast Pilot  |            |
| 4 | 5038 | D | The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 25'-05". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 97 tons of seawater. | FWD 22'-10.7", AFT 25'-00.9"                                  | FWD 22'-11.3", AFT 25'-00.3"                 | FWD 22'-11.9", AFT 24'-11.7"                              | FWD 23'-00.5", AFT 24'-11.1"                                 |            |
| 4 | 5041 | D | When must a MODU display navigation lights while underway?  | Only between sunrise and sunset                               | At all times while being towed               | Only when other vessels are in sight                      | Whenever visibility is restricted                            |            |
| 4 | 5042 | C | What is the meaning of the signal SA T1035 RQ when sent by the International code of Signals?   | The longitude is 10°35'.                                      | I am altering course to 103.5°T.             | Can you proceed at 1035 local time?                       | Is the latitude 10°35'?                                      |            |
| 4 | 5045 | D | Your jack-up is being towed along a shipping channel. You are concerned that a vessel that is overtaking you is coming too close to pass safely. You must _____.  | broadcast a Mayday message                                    | prepare the survival craft for launching     | sound the abandon unit signal                             | sound five or more short blasts on the whistle               |            |
| 4 | 5047 | A | A jack-up drilling rig being towed must _____.  | turn off all lights that interfere with the navigation lights | turn on all available working lights on deck | ring the bell rapidly for five seconds once a minute      | display two black diamonds in a vertical line during the day |            |
| 4 | 5053 | B | Which shape shown would be displayed by a mobile offshore drilling unit that is being towed more than 200 meters astern of a towing vessel?   | A   | B  | C   | D  | DIAGRAM 16 |
| 4 | 5055 | B | A mobile offshore drilling unit will show the day-shape in DIAGRAM 10 to indicate that it is _____.   | at anchor   | being towed                                  | aground   | drilling   |            |
| 4 | 5057 | D | A mobile offshore drilling unit under tow is approaching a fog bank. When should fog signals be started?  | When the towing vessel enters the fog                         | When the drilling rig enters the fog         | When the towing vessel can no longer be seen from the rig | Immediately  |            |
| 4 | 5061 | D | During a move to a new location, a jack-up drilling unit with personnel on board is towed through a heavy rainstorm. What signal must be sounded by the drilling rig when visibility is restricted?     | One prolonged blast   | Two prolonged blasts                         | One prolonged and two short blasts                        | One prolonged and three short blasts                         |            |

|   |      |   |  |  |  |  |   |         |
|---|------|---|--|--|--|--|---|---------|
| 4 | 5062 | D | You are making a heavy lift with the jumbo boom. Your vessel displaces 8530 T. The 40-ton weight is on the pier and its center is 65' to starboard of the centerline. The head of the boom is 115' above the base line and the center of gravity of the lift when stowed on deck will be 50' above the base line. As the jumbo boom takes the strain the ship lists to 5°. What is the GM with the cargo stowed? | 2.96 ft  | 3.18 ft  | 3.46 ft  | 3.77 ft   |         |
| 4 | 5063 | C | What signal must be sounded by a vessel towing a mobile offshore drilling unit through an area of restricted visibility?   | Two prolonged blasts   | Five or more short blasts  | One prolonged and two short blasts   | One prolonged and three short blasts                                      |         |
| 4 | 5065 | A | Under what condition are you allowed to depart from the rules of the road?   | To avoid immediate danger  | When authorized by the rig superintendent  | To comply with an operator's requirement   | Under no conditions   |         |
| 4 | 5067 | A | While a MODU is underway, a look-out must be maintained _____.   | at all times   | only during periods of restricted visibility                                     | only when other vessels are present  | only during the hours of darkness   |         |
| 4 | 5068 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 19'-00", AFT 24'-00". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.  | 0.62 foot  | 0.80 foot  | 0.85 foot  | 0.99 foot   | ST-0171 |
| 4 | 5071 | B | A mobile offshore drilling unit is on the waters of the U.S. Outer Continental Shelf. It has a length of 220 feet and a breadth of 190 feet. Where must the obstruction lights be located?   | At the top of the drill mast   | On each corner of the rig  | At the bow of the rig  | At the bow and stern of the rig   |         |
| 4 | 5073 | D | An obstruction light on a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf, shall have a lens that is visible over an arc of _____.   | 60°  | 90°  | 180°   | 360°  |         |
| 4 | 5075 | C | What lighting characteristic is required of an obstruction light on a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf?   | Fixed  | Flashing   | Quick-flashing   | Occulting   |         |
| 4 | 5077 | C | The requirements for obstruction lights on mobile offshore drilling units apply on all waters _____.   | outside the boundary lines that are covered by International Rules of the Road | outside the lines of demarcation that are covered by the U.S. navigational rules | over the Outer Continental Shelf and on waters under the jurisdiction of the United States | over the prohibited zone defined in the Oil Pollution Control Act of 1961 |         |

|   |      |   |   |  |  |   |  |        |
|---|------|---|---|--|--|---|--|--------|
| 4 | 5081 | A | What color are obstruction lights on mobile offshore drilling units that are located on the waters of the U.S. Outer Continental Shelf seaward of the line of demarcation?  | White  | Red  | Yellow  | Blue   |        |
| 4 | 5083 | A | When a mobile offshore drilling unit on the waters of the U.S. Outer Continental Shelf has more than one obstruction light, the lights must be operated to flash _____.   | at the same time   | in sequence at intervals of five seconds   | in sequence at intervals of ten seconds   | in sequence at intervals of fifteen seconds  |        |
| 4 | 5085 | B | A mobile offshore drilling unit must display obstruction lights when it is on the waters over the Outer Continental Shelf and is _____.   | under tow  | fixed to the seabed  | underway  | All of the above   |        |
| 4 | 5087 | D | What agency is responsible for enforcing the rules for obstruction lights on mobile offshore drilling units?  | Minerals Management Service  | Corps of Engineers   | Department of Energy  | U.S. Coast Guard   |        |
| 4 | 5091 | B | Obstruction lights on mobile offshore drilling units on the waters of the U.S. Outer Continental Shelf must be displayed _____.   | at all times   | between sunset and sunrise   | whenever visibility is restricted   | whenever vessels approach within one-half mile   |        |
| 4 | 5092 | B | You are scheduled to load 3200 tons of cargo, 45 tons of crew effects and stores and 259 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water: | 17'-00"  | 16'-09"  | 16'-06"   | 16'-04"  |        |
| 4 | 5093 | A | A jack-up drilling unit elevated on the Outer Continental Shelf must have a fog horn that will sound _____.   | a 2-second blast every 20 seconds  | a 4-second blast every 20 seconds  | an 8-second blast every 30 seconds  | a 10-second blast every 30 seconds   |        |
| 4 | 5094 | B | The mechanism that will release the tricing pendant, as shown, is _____.  | the fore and aft gripes  | the McCluney hook  | a quick release lever   | a 3/4" shackle   | D012SA |
| 4 | 5095 | A | Who has the ultimate responsibility for the safety of a mobile offshore drilling unit while it is being towed to a new location?  | The rig mover  | The Pilot  | The marine surveyor   | The Offshore Installation Manager  |        |
| 4 | 5097 | B | To have the ultimate authority for a mobile offshore drilling unit while it is under tow, a rig mover must _____.   | hold an Able Seaman certificate and be designated as the person in charge of the rig | hold a license as Offshore Installation Manager and be held as the person in charge of the rig | be certified by an approved classification society and be designated as the person in charge of the rig | be certified by the Minerals Management Service and be designated as the person in charge of the rig |        |

|   |      |   |  |   |  |  |  |         |
|---|------|---|--|---|--|--|--|---------|
| 4 | 5098 | B | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 20'-04", AFT 23'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.    | 0.62 foot   | 0.80 foot  | 0.85 foot  | 0.99 foot  | ST-0172 |
| 4 | 5101 | D | When a marine surveyor is employed to assist in the move of a mobile offshore drilling unit, he _____.   | becomes responsible for the safe movement of the rig  | relieves the Offshore Installation Manager at the moment the rig is free from the bottom | must be designated as the person in charge of the rig      | is a specialist who is hired to provide advice and guidance on aspects of the move         |         |
| 4 | 5103 | B | A hurricane has recurved to the northeast and its forward speed is 20 knots. Your MODU is located 600 miles northeast of the hurricane's center. How long will it take for the hurricane center to reach your position if it holds its present course and speed? | 10 hours  | 30 hours   | 50 hours   | 80 hours   |         |
| 4 | 5105 | A | The edge of a hurricane has overtaken your MODU in the Gulf of Mexico and the northwest wind of a few hours ago has shifted to the west. This is an indication that you are located in the _____.  | navigable semicircle  | dangerous semicircle   | low pressure area  | eye of the storm   |         |
| 4 | 5113 | C | A tropical storm is building strength some distance from your MODU. Waves are coming from the east, with periods increasing from 5 seconds to 15 seconds. The swell is from the east. Where was the storm when these new swells were generated?                  | To the north of you   | To the south of you  | To the east of you   | To the west of you   |         |
| 4 | 5115 | A | What kind of conditions would you observe as the eye of a storm passes over your MODU's position?  | Huge waves approaching from all directions, clearing skies, light winds, and an extremely low barometer | Flat calm seas, heavy rain, light winds, and an extremely low barometer                  | Flat calm seas, heavy rain, light winds, and high pressure | Huge waves approaching from all directions, clearing skies, light winds, and high pressure |         |
| 4 | 5121 | D | What danger is presented if a waterspout passes over a MODU?   | Heavy rains could cause downflooding.   | Visibility could be restricted by low clouds.  | Large waves could cause structural damage.                 | Personnel may be injured by loose deck gear blown by the wind.                             |         |

|   |      |   |   |                          |                                     |  |  |         |
|---|------|---|---|--------------------------|-------------------------------------|--|--|---------|
| 4 | 5122 | C | You are scheduled to load 3700 tons of cargo, 45 tons of crew effects and stores and 427 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in fresh water.   | 17'-01"                  | 17'-00"                             | 17'-10"  | 18'-00"                                |         |
| 4 | 5123 | C | In MODU construction, bulkheads in the quarters are generally _____.  | structural               | watertight                          | non-structural                                   | continuous                             |         |
| 4 | 5124 | A | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.05 feet                | 1.15 feet                           | 1.25 feet  | 1.31 feet                              | ST-0173 |
| 4 | 5125 | A | A MODU with the TCG off the longitudinal centerline inclines to an angle of _____.  | list                     | heel                                | trim   | loll                                   |         |
| 4 | 5127 | A | In illustration D041DG, the symbol for displacement is _____.   | 1                        | 2                                   | 3  | 4                                      |         |
| 4 | 5131 | D | In illustration D041DG symbol 1 refers to _____.  | change of draft          | centerline                          | angle of inclination                             | displacement                           |         |
| 4 | 5133 | D | In illustration D041DG, the symbol for the reference from which the height of the center of gravity is measured is _____.   | 5                        | 4                                   | 3  | 2                                      |         |
| 4 | 5135 | D | In the illustration, symbol 2 represents _____.   | displacement             | beam limit                          | bilge level                                      | baseline                               | D041DG  |
| 4 | 5137 | D | When a floating MODU inclines to an angle slightly greater than the angle of loll, she will _____.  | capsize                  | incline further                     | flop to the other side                           | return to the angle of loll            |         |
| 4 | 5153 | B | A semisubmersible floating in sea water displaces 20,000 long tons. She has vertical moments of 1,000,000 foot-long tons. What is the change in KG if 500 long tons are placed aboard at a KG of 120 feet?  | 1.22 feet upward         | 1.71 feet upward                    | 1.75 feet upward                                 | 2.93 feet upward                       |         |
| 4 | 5154 | D | The sea anchor shown as item number 18 will NOT _____.  | check the liferaft's way | keep the liferaft end on to the sea | reduce the possibility of capsizing or broaching | right the raft if it inflates inverted | D014SA  |

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|---|------|---|---|---|--|---|---|--|
| 4 | 5155 | D | A MODU displacing 10,000 long tons with KG 20.0 feet, uses its crane to lift a 40 long ton load from dockside and place it on board at a VCG of 5.0 feet. When lifting, the head of the crane boom is 50.0 feet above the keel. During the lift, what is the apparent increase in KG? | 0.02 foot   | 0.12 foot  | 0.18 foot   | 0.20 foot   |  |
| 4 | 5156 | B | Your non-oceangoing vessel is required to have a fixed piping system to discharge oily mixtures ashore. What is required at each outlet of this system?   | A 5-gallon can or a fixed containment system                    | A stop valve   | A non-return valve  | A means to stop each pump   |  |
| 4 | 5157 | B | A MODU displacing 10,000 tons uses its crane to lift a 20 ton load, already aboard, to a height of 5 feet above the deck. When lifting, the head of the crane boom is 50 feet above the load. What is the change in KG?   | No change   | 0.1 foot   | 0.2 foot  | 1.0 foot  |  |
| 4 | 5163 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #3 (Preparing to Drill). If all the liquid mud (see table 8) is dumped, what would be the new height of the longitudinal metacenter?  | 61.13 feet  | 61.19 feet   | 61.22 feet  | 62.94 feet  |  |
| 4 | 5175 | B | The DEEP DRILLER, in transit at a seawater draft of 19 feet, enters a fresh water port. What is the new draft?  | 19.03 feet  | 19.40 feet   | 19.63 feet  | 21.16 feet  |  |
| 4 | 5177 | C | The DEEP DRILLER departs a fresh water port at a draft of 20 feet. What will be the draft in sea water?   | 19.0 feet   | 19.3 feet  | 19.6 feet   | 20.4 feet   |  |
| 4 | 5181 | B | The DEEP DRILLER departs a fresh water port at a draft of 19.5 feet. What will be the draft in sea water?   | 18.7 feet   | 19.1 feet  | 19.4 feet   | 19.8 feet   |  |
| 4 | 5183 | C | The DEEP DRILLER departs a fresh water port at a draft of 20.5 feet. What will be the draft in sea water?   | 18.2 feet   | 19.4 feet  | 19.7 feet   | 22.8 feet   |  |
| 4 | 5191 | A | While being towed at a 19.5 foot draft, the DEEP DRILLER experiences single amplitude pitching of 7.5 degrees with an 8 second period. You should _____.  | continue towing operations and carefully monitor vessel motions | alter course into the wind to improve motion characteristics | ballast the rig to a 45 foot draft and check the vessel motion at the new draft | ballast the rig to a 60 foot draft and check vessel motion at the new draft |  |
| 4 | 5192 | D | There is a fire aft aboard your vessel. To help fight the fire, you should _____.   | put the wind off either beam                                    | put the stern into the wind and decrease speed               | put the stern into the wind and increase speed                                  | head the bow into the wind and decrease speed                               |  |

|   |      |   |   |  |  |  |   |  |
|---|------|---|---|--|--|--|---|--|
| 4 | 5193 | C | The DEEP DRILLER is being towed at a 20 foot draft. Vessel motions are within acceptable limits, but the waves begin to hit the horizontal braces. You should _____.  | continue on course at the same draft                     | ballast to a 60 foot draft and continue on course                  | change course to reduce the wave impact                | shorten the tow wire for a smoother ride  |  |
| 4 | 5195 | A | The DEEP DRILLER is under tow at a 20 foot draft. The rig motions are close to exceeding the limits for critical pitch and roll. The rig is also experiencing occasional pounding on the horizontal braces. In this situation you should _____.   | ballast down to a 45 foot draft and check vessel motions | wait until pitch and roll exceed the limits before ballasting down | ballast up to a 15 foot draft and check vessel motions | shorten the tow wire for a smoother tow   |  |
| 4 | 5196 | A | You are hoisting a heavy lift with the jumbo boom. Your vessel displaces 8560 T. The 45-ton weight is on the pier and its center is 65' to starboard of the centerline. The head of the boom is 95' above the base line and the center of gravity of the lift when stowed on deck will be 55' above the base line. As the jumbo boom takes the strain the ship lists to 5.5°. What is the GM with the cargo stowed? | 3.74 ft.   | 3.96 ft.   | 4.16 ft.   | 4.35 ft.                                  |  |
| 4 | 5197 | C | The DEEP DRILLER, at a draft of 60 feet, has VM of 942,120 ft-tons, and FSML of 36,235 ft-tons. What is the KGL?  | 52.0 feet  | 53.0 feet  | 54.0 feet  | 55.0 feet                                 |  |
| 4 | 5201 | A | If the low side bilge pump fails and the high side bilge pump has insufficient suction to dewater the low side of the COASTAL DRILLER when afloat, you should use the _____.  | saltwater eductor system                                 | raw water tower pumps  | mud pumps  | preload pumps                             |  |
| 4 | 5203 | D | Among the possible causes of unexpected rapid increasing inclination of the floating COASTAL DRILLER is _____.  | consumption of on board liquids                          | miscalculation of loads  | external environmental forces                          | flooding due to hull damage               |  |
| 4 | 5205 | B | Among the possible causes of unexpected constant inclination of the floating COASTAL DRILLER is _____.  | consumption of on board liquids                          | miscalculation of loads  | liquid transfer through open valves                    | flooding due to hull damage               |  |
| 4 | 5223 | B | When floating, the appropriate leg horizontal must be aligned in the center of the _____.   | center of each lower hull guide                          | center of each upper guide structure                               | top of the jack house                                  | bottom of the hull                        |  |
| 4 | 5225 | D | If the cause of a sudden severe list or trim is negative initial stability, counterflooding into empty tanks may _____.   | increase the righting moment                             | cause an increase in the righting arm                              | bring the unit to an upright equilibrium position      | cause the unit to flop to a greater angle |  |
| 4 | 5232 | C | Fusible-link fire dampers are operated by _____.  | a mechanical arm outside the vent duct                   | electrical controls on the bridge                                  | the heat of a fire melting the link                    | a break-glass and pull-cable system       |  |

|   |      |   |   |   |   |  |  |         |
|---|------|---|---|---|---|--|--|---------|
| 4 | 5233 | C | During counterflooding to correct a severe list or trim aggravated by an off-center load, a MODU suddenly takes a list or trim to the opposite side. You should _____.  | continue counterflooding in the same direction    | continue counterflooding, but in the opposite direction | immediately stop counterflooding                             | deballast from the low side                            |         |
| 4 | 5234 | B | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 15'-05", AFT 21'-03". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.05 feet   | 1.15 feet   | 1.25 feet  | 1.31 feet  | ST-0174 |
| 4 | 5235 | A | If a MODU takes a sudden severe list or trim from an unknown cause, you should FIRST _____.   | determine the cause before taking countermeasures | assume the shift is due to off-center loading           | counterflood on the side opposite the list or trim           | assume the cause is environmental forces               |         |
| 4 | 5245 | C | To maintain a high state of readiness against the possibility of damage and subsequent flooding while aboard the DEEP DRILLER, you should _____.  | post a watch in the pump room                     | keep tanks no more than half filled                     | cap sounding tubes except when in use                        | keep bilge pumps operating continuously                |         |
| 4 | 5247 | B | In case of major damage to column C1P while the DEEP DRILLER is on location, you should pump from port-forward lower-hull tanks using _____.  | all four ballast pumps                            | both port-side ballast pumps                            | saltwater service pump to supplement port-side ballast pumps | drill water pump to supplement port-side ballast pumps |         |
| 4 | 5261 | A | The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C1P. Your best countermeasure is to _____.  | pump from 2P                                      | pump from C1P   | counterflood in 1P   | counterflood in 10S                                    |         |
| 4 | 5263 | A | The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C3S. Your best countermeasure is to _____.  | pump from 9S                                      | pump from C3S   | counterflood in 1P   | counterflood in 10S                                    |         |
| 4 | 5265 | B | The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C1P. Pumping from tanks in the vicinity of the damage has proven ineffective. Your best countermeasure is to _____.               | counterflood in 1P                                | counterflood in 10S                                     | pump from C1P  | pump from C3S  |         |



|   |      |   |  |                              |                                  |  |  |        |
|---|------|---|--|------------------------------|----------------------------------|--|--|--------|
| 4 | 5267 | A | The DEEP DRILLER, loaded as shown in Sample Load Form #4 (Drilling), suffers major damage which results in flooding in tank C3S. Pumping from tanks in the vicinity of the damage have proven ineffective. Your best countermeasure is to _____. | counterflood in 1P           | counterflood in 10S              | pump from C1P  | pump from C3S  |        |
| 4 | 5271 | B | The DEEP DRILLER, loaded as shown in Sample Load Form #5 (Survival), suffers major damage which results in flooding in tank C1P. Your best countermeasure is to pump from _____.   | 1P                           | 3P                               | C1P  | C2P  |        |
| 4 | 5273 | C | The DEEP DRILLER, loaded as shown in Sample Load Form #5 (Survival), suffers major damage which results in flooding in tank C3S. Your best countermeasure is to _____.   | pump from 10S                | counterflood in 1P               | pump from 8S   | pump from C3S  |        |
| 4 | 5274 | C | The type davits shown are _____.   | round-bar davits             | radial davits                    | gravity davits   | quadrantal davits                                      | D008SA |
| 4 | 5275 | B | In case of minor damage to lower-hull tank 1P while the DEEP DRILLER is in transit, you should pump from tank 1P using _____.  | all four ballast pumps       | both port-side ballast pumps     | saltwater service pump to supplement port-side ballast pumps | drill water pump to supplement port-side ballast pumps |        |
| 4 | 5276 | A | The SS AMERICAN MARINER has drafts of: FWD 18'-07", AFT 23'-03". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 92 tons of seawater.  | FWD 19'-04.9", AFT 22'-08.7" | FWD 19'-05.4", AFT 22'-08.0"     | FWD 19'-05.7", AFT 22'-07.7"                                 | FWD 19'-06.3", AFT 22'-07.1"                           |        |
| 4 | 5277 | D | Failure of both port ballast pumps on the DEEP DRILLER prevents their use. To deballast from tank 1P, you may use the _____.   | port saltwater service pump  | port drill water pump            | port bilge pumps   | starboard ballast pump and the crossover system        |        |
| 4 | 5281 | A | The DEEP DRILLER suffers minor flooding of the port pump room while in transit. If both port bilge pumps fail to dewater the pump room, you may _____.   | use port drill water pump    | use port saltwater service pump  | use port ballast pumps                                       | use starboard ballast pumps and crossover system       |        |
| 4 | 5283 | A | The DEEP DRILLER suffers minor flooding of the starboard pump room while in transit. If both starboard bilge pumps fail to dewater the pump room, you may use _____.   | starboard drill water pump   | starboard saltwater service pump | starboard ballast pumps                                      | port ballast pumps and crossover system                |        |
| 4 | 5285 | C | The DEEP DRILLER, loaded as shown in Sample Load Form #1 (Transit), suffers minor damage which results in flooding in tank 1P. You may pump from _____.  | 2P                           | C1P                              | 1P   | 10S  |        |

|   |      |   |   |                                   |                         |                               |                                   |         |
|---|------|---|---|-----------------------------------|-------------------------|-------------------------------|-----------------------------------|---------|
| 4 | 5286 | C | A vessel is inclined at an angle of loll. In the absence of external forces, the righting arm (GZ) is _____.  | positive                          | negative                | zero                          | vertical                          |         |
| 4 | 5287 | C | The DEEP DRILLER, loaded as shown in Sample Load Form #1 (Transit), suffers minor damage which results in flooding in tank 1S. You may pump from _____.   | 2S                                | C1S                     | 1S                            | 10P                               |         |
| 4 | 5297 | D | Among the possible causes of unexpected rapidly increasing inclination of the DEEP DRILLER while in transit is _____.   | consumption of on board variables | miscalculation of loads | external environmental forces | flooding due to lower-hull damage |         |
| 4 | 5301 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the shift in VCG if 100.76 long tons of ballast are added to Ballast Tank #8S to replace the discharge of all bulk materials?                                | 0.19 foot down                    | 0.44 foot down          | 0.63 foot down                | 1.19 feet down                    |         |
| 4 | 5302 | D | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-05", AFT 19'-07". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 0.62 foot                         | 0.80 foot               | 0.85 foot                     | 0.99 foot                         | ST-0175 |
| 4 | 5305 | A | The COASTAL DRILLER, in ocean transit at a draft of 10 feet 6 inches with winds less than 70 knots, has a KGT of 50.6 feet and a KGL of 51.4 feet. The margin on the maximum allowable KG is _____.   | 13.6 feet                         | 14.4 feet               | 40.0 feet                     | 65.0 feet                         |         |
| 4 | 5307 | D | The COASTAL DRILLER, in ocean transit at a draft of 10 feet 6 inches with winds greater than 70 knots, has a KGT of 38.7 feet and a KGL of 38.2 feet. The margin on the maximum allowable KG is _____.  | 26.8 feet                         | 26.3 feet               | 1.8 feet                      | 1.3 feet                          |         |
| 4 | 5308 | A | Your drafts are: FWD 17'-09", AFT 21'-03". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?   | 25.7 feet                         | 26.0 feet               | 26.4 feet                     | 26.8 feet                         |         |
| 4 | 5311 | C | The COASTAL DRILLER, in field transit at a draft of 10 feet 0 inches with winds less than 70 knots, has a KGT of 39.0 feet and a KGL of 38.6 feet. The margin on the maximum allowable KG is _____.   | 3.0 feet                          | 3.4 feet                | 26.0 feet                     | 26.4 feet                         |         |

|   |      |   |   |                |             |               |              |         |
|---|------|---|---|----------------|-------------|---------------|--------------|---------|
| 4 | 5312 | C | As shown, the line indicated by number 4 is connected to the _____.   | releasing gear | sea painter | McCluney hook | Fleming gear | D016SA  |
| 4 | 5313 | A | The COASTAL DRILLER, in ocean transit at a draft of 10 feet 0 inches with winds greater than 70 knots, has a KGT of 39.0 feet and a KGL of 38.6 feet. The margin on the maximum allowable KG is _____.  | 2.6 feet       | 4.1 feet    | 26.3 feet     | 26.8 feet    |         |
| 4 | 5314 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 18'-08". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.   | 1.05 feet      | 1.15 feet   | 1.25 feet     | 1.31 feet    | ST-0176 |
| 4 | 5315 | A | The COASTAL DRILLER, in transit during a severe storm while at a draft of 9 feet 6 inches, has a KGT of 39.1 feet and a KGL of 39.9 feet. The margin on the maximum allowable KG is _____.  | 2.6 feet       | 3.4 feet    | 25.1 feet     | 25.9 feet    |         |
| 4 | 5321 | B | While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 541,257 ft-kips, FSML are 32,000 ft-kips and FSMT are 24,000 ft-kips. How much should the KGL be lowered to satisfy the maximum allowable KG criteria?                                    | 23.04 feet     | 1.96 feet   | 0.62 foot     | 0.00 feet    |         |
| 4 | 5323 | D | While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 520,462 ft-kips, FSML are 26,000 ft-kips, and FSMT are 25,000 ft-kips. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria? | 26.90 feet     | 25.00 feet  | 1.90 feet     | 0.00 feet    |         |
| 4 | 5325 | B | While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. VM are 546,462 ft-kips, FSML are 18,000 ft-kips, and FSMT are 32,000 ft-kips. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria? | 22.66 feet     | 2.34 feet   | 1.32 feet     | 0.00 feet    |         |

|   |      |   |   |                                 |                                 |                       |                    |  |
|---|------|---|---|---------------------------------|---------------------------------|-----------------------|--------------------|--|
| 4 | 5327 | D | While the COASTAL DRILLER is in transit at a draft of 10 feet 6 inches, a severe storm is predicted within 12 hours. GMT is 98.89 feet. How much should the KG corrected for free surface effects be lowered to satisfy the maximum allowable KG criteria?                                    | 3.66 feet                       | 2.34 feet                       | 1.32 feet             | 0.00 feet          |  |
| 4 | 5341 | A | For stronger leg support when the COASTAL DRILLER is elevated, locate a set of horizontal leg braces as near as possible to the _____.  | center of each lower hull guide | center of each upper hull guide | top of the jack house | bottom of the hull |  |
| 4 | 5353 | A | When preloading the COASTAL DRILLER, the maximum total weight shall not exceed _____.   | 21,497 kips                     | 21,297 kips                     | 17,700 kips           | 14,400 kips        |  |
| 4 | 5354 | D | You are scheduled to load 3200 tons of cargo, 45 tons of crew effects and stores and 323 tons of fuel. Use the blue pages of the Stability Data Reference Book to determine the vessel's mean draft in salt water.  | 17'-00"                         | 16'-10"                         | 16'-07"               | 16'-04"            |  |
| 4 | 5357 | D | During preloading or elevating the COASTAL DRILLER, jacking-up may continue if the total weight is less than _____.   | 21,497 kips                     | 21,297 kips                     | 17,700 kips           | 14,400 kips        |  |
| 4 | 5361 | A | The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the bow leg reaction?       | 7,026 kips                      | 7,099 kips                      | 7,144 kips            | 7,180 kips         |  |
| 4 | 5363 | D | The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the starboard leg reaction? | 7,026 kips                      | 7,099 kips                      | 7,144 kips            | 7,180 kips         |  |

|   |      |   |  |                       |                               |                                |                                 |  |
|---|------|---|--|-----------------------|-------------------------------|--------------------------------|---------------------------------|--|
| 4 | 5365 | C | The COASTAL DRILLER, when underway was loaded as shown in Sample Load Form #1 (Rig Move). It is now preloaded at minimum air gap waiting for all settling to take place. The preload, weighing 7,191.7 kips, has LM 870,196 ft-kips and TM 2,158 ft-kips. What is the port leg reaction? | 7,026 kips            | 7,099 kips                    | 7,144 kips                     | 7,180 kips                      |  |
| 4 | 5373 | D | While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are -6,206 ft-kips. What is the port leg reaction?   | 7,099 kips            | 7,134 kips                    | 7,151 kips                     | 7,203 kips                      |  |
| 4 | 5381 | A | While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips, LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The bow leg reaction is _____.   | 4,536 kips            | 4,716 kips                    | 4,748 kips                     | 4,866 kips                      |  |
| 4 | 5385 | A | While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are -6,206 ft-kips. What is the starboard leg reaction?  | 7,099 kips            | 7,134 kips                    | 7,151 kips                     | 7,203 kips                      |  |
| 4 | 5386 | B | Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?   | Carbon dioxide        | Carbon monoxide               | Nitric oxide                   | Hydrogen sulfide                |  |
| 4 | 5387 | D | Which toxic gas is a product of incomplete combustion, and is often present when a fire burns in a closed compartment?   | Nitric oxide          | Carbon dioxide                | Hydrogen sulfide               | Carbon monoxide                 |  |
| 4 | 5388 | A | The most likely location for a liquid cargo fire to occur on a tanker would be _____.  | in the pumproom       | at the vent header            | at the main deck manifold      | the midships house              |  |
| 4 | 5407 | D | The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What would be the LCG if the preload is dumped and the cantilever and drill floor are skidded aft, placing the rotary 34 feet aft of the transom?   | 114.06 feet AFO       | 119.44 feet AFO               | 123.75 feet AFO                | 125.91 feet AFO                 |  |
| 4 | 5408 | B | One of the first actions to be taken by survivors when they have boarded an inflatable liferaft is to _____.   | stream the sea anchor | take an anti-seasickness pill | open the pressure relief valve | drink at least one can of water |  |
| 4 | 5411 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What will be the LCG if the preload is dumped?  | 118.51 feet AFO       | 119.44 feet AFO               | 120.62 feet AFO                | 121.53 feet AFO                 |  |

|   |      |   |   |                 |                              |                      |                  |         |
|---|------|---|---|-----------------|------------------------------|----------------------|------------------|---------|
| 4 | 5412 | A | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 21'-04", AFT 26'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.                 | 0.62 foot       | 0.80 foot                    | 0.85 foot            | 0.99 foot        | ST-0177 |
| 4 | 5413 | B | The COASTAL DRILLER is loaded as shown in the Sample Load Form #2 (Preload). What would be the TCG if the preload is dumped and the cantilever and drill floor are skidded aft, placing the rotary 34 feet aft of the transom, and the drill floor is skidded 8 feet to port? | -0.52 foot      | -0.33 foot                   | -0.17 foot           | 0.52 foot        |         |
| 4 | 5415 | C | The COASTAL DRILLER, loaded as shown in the Sample Load Form #2 (Preload), dumps the preload. However, 138.4 kips remained on board. The LM for the remaining preload is 17,992 ft-kips. What is the new LCG?   | 119.33 feet AFO | 119.44 feet AFO              | 119.54 feet AFO      | 119.66 feet AFO  |         |
| 4 | 5417 | A | The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), discharges the bulk in Bulk Tanks 1 and 2. What is the new LCG?   | 124.97 feet AFO | 125.09 feet AFO              | 127.70 feet AFO      | 130.42 feet AFO  |         |
| 4 | 5418 | D | Small passenger vessels in coastwise service must carry approved _____.   | life floats     | inflatable buoyant apparatus | inflatable liferafts | Any of the above |         |
| 4 | 5421 | D | The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), discharges the bulk in Bulk Tanks 1 and 2. What is the new TCG?   | -1.61 feet      | -1.58 feet                   | 0.43 feet            | 0.99 feet        |         |
| 4 | 5423 | B | The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), dumps all the mud in pits 1, 2, 3, and 4. What is the new TCG?  | -0.36 foot      | -0.26 foot                   | 0.31 foot            | 0.36 foot        |         |
| 4 | 5425 | C | The COASTAL DRILLER, loaded as shown in the Sample Load Form #3 (Drilling), dumps all the mud in pits 1, 2, 3, and 4. What is the new LCG?  | 122.02 feet AFO | 125.03 feet AFO              | 125.63 feet AFO      | 131.46 feet AFO  |         |
| 4 | 5427 | B | The COASTAL DRILLER, loaded as shown in the Sample Load Form #4 (Storm), discharges all the bulk in the four bulk tanks. What is the new LCG?   | 115.79 feet AFO | 119.18 feet AFO              | 119.44 feet AFO      | 126.68 feet AFO  |         |
| 4 | 5431 | D | The COASTAL DRILLER, loaded as shown in the Sample Load Form #4 (Storm), discharges all the bulk in the four bulk tanks. What is the new TCG?   | -1.11 feet      | -0.47 foot                   | 1.07 feet            | 1.11 feet        |         |

|   |      |   |  |  |  |  |  |         |
|---|------|---|--|--|--|--|--|---------|
| 4 | 5433 | D | It is vital to the safety of the elevated COASTAL DRILLER that the hull be kept above _____.   | the charted water depth                                | the charted water depth plus tidal corrections | the still water level                  | wave action  |         |
| 4 | 5434 | C | You are hoisting a heavy lift with the jumbo boom. Your vessel displaces 5230 T. The 35-ton weight is on the pier and its center is 60' to starboard of the centerline. The head of the boom is 105' above the base line and the center of gravity of the lift when stowed on deck will be 42' above the base line. As the jumbo boom takes the strain the ship lists to 5°. What is the GM with the cargo stowed? | 4.11   | 4.54   | 4.98                                   | 5.13   |         |
| 4 | 5435 | C | The COASTAL DRILLER is operating with a wave clearance of about 20 feet. The out-of-level alarm sounds and the unit is found to be inclined 0.5 degree bow down. The recommended course of action is to _____.   | prepare to take action in case inclination increases   | jack the hull up on the bow leg                | jack the hull down on the aft two legs | transfer weight, such as drill water, toward the stern |         |
| 4 | 5441 | A | The COASTAL DRILLER has suffered a casualty which requires an orderly evacuation of the unit using the lifeboats and liferafts. Among the items to accomplish in preparing to evacuate the unit is _____.  | securing the unit as in preparation for a severe storm | distributing self-contained breathing devices  | taking a soil sample of the bottom     | All of the above                                       |         |
| 4 | 5445 | B | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to port and forward. Strong wind and high waves are from the starboard quarter. Among the possible causes, you should consider _____.   | failure of mooring lines 1 or 2                        | failure of mooring lines 5 or 6                | leak in ballast tank #2P               | ballast tanks are equalizing into tank 1P              |         |
| 4 | 5447 | B | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to starboard and forward. Strong winds and high waves are from the port quarter. Among the possible causes, you should consider _____.  | failure of mooring lines 3 or 4                        | failure of mooring lines 7 or 8                | leak in ballast tank #2S               | ballast tanks equalizing into tank 1S                  |         |
| 4 | 5449 | D | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 17'-06", AFT 20'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction.  | 1.05 feet  | 1.15 feet                                      | 1.25 feet                              | 1.31 feet  | ST-0178 |

|   |      |   |   |                                       |  |  |  |         |
|---|------|---|---|---------------------------------------|--|--|--|---------|
| 4 | 5451 | B | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to starboard and aft. Strong wind and high waves are on the port bow. Among the possible causes, you should consider _____.        | failure of mooring lines 5 or 6       | failure of mooring lines 1 or 2                      | leak in ballast tank 9P                        | ballast tanks equalizing into tank 10S               |         |
| 4 | 5455 | C | What percentage of the breaking strength is the generally accepted safe operating load of an anchor cable?  | 10%                                   | 25%  | 35%  | 50%  |         |
| 4 | 5457 | D | The only wire rope termination which may be made in the field is _____.   | swaged socket                         | thimble mechanical splice                            | hand splice                                    | spelter poured and resin sockets                     |         |
| 4 | 5461 | A | Thirty-five percent of the breaking strength of an anchor cable is generally accepted as the _____.   | safe operating load                   | normal operating tension                             | emergency working load                         | allowable storm load                                 |         |
| 4 | 5462 | C | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.30 feet                             | 1.17 foot  | 1.01 foot                                      | 0.91 foot  | ST-0179 |
| 4 | 5463 | C | A common class of wire rope used for mooring is the 6x19 class. What does the 6 represent?  | Factor of safety                      | Number of wires per strand                           | Number of strands per wire rope                | Number of wires in the core                          |         |
| 4 | 5465 | D | A common class of wire rope used for mooring is the 6x37 class. What does the 37 represent?   | Number of wires in the inner core     | Number of strands per wire rope                      | Tensile strength of the wire                   | Number of wires per strand                           |         |
| 4 | 5467 | D | What is an advantage of the 6x19 class of wire rope over the 6x37 class of wire rope of the same diameter?  | Greater holding power                 | Better fatigue life                                  | Resistance to elongation                       | Resistance to corrosion                              |         |
| 4 | 5471 | A | What is an advantage of the 6x37 class of wire rope over the 6x19 class of wire rope of the same diameter?  | Flexibility                           | Resistance to corrosion                              | Resistance to elongation                       | Lower weight per foot                                |         |
| 4 | 5473 | B | Where do fatigue failures of wire rope mooring lines usually occur?   | In the middle part of the line length | Near the socketed end fitting adjacent to the anchor | At the point where the line touches the bottom | At the place the anchor buoy is attached to the line |         |
| 4 | 5475 | B | The primary purpose for using stud link chain in a mooring system on a rig is the _____.  | stud link is more economical          | stud keeps the chain from kinking                    | stud link chain is the lightest night design   | stud link improves the anchor's holding power        |         |
| 4 | 5477 | D | Standards for fabrication and testing of chain on mobile offshore drilling units are provided by the _____.   | Department of the Interior            | U.S. Coast Guard                                     | Minerals Management Service                    | American Petroleum Institute                         |         |



|   |      |   |   |   |  |   |   |        |
|---|------|---|---|---|--|---|---|--------|
| 4 | 5479 | A | The purpose of the inclining experiment on a vessel is to determine the _____.  | location of the center of gravity of the light ship | position of the center of buoyancy       | position of the metacenter  | maximum load line                                     |        |
| 4 | 5481 | B | A common means of connecting shots of anchor chain in the field is to use a _____.  | sprocket  | Kenter link                              | swivel  | end shackle   |        |
| 4 | 5483 | A | The idler sheave which directs and turns the anchor cable from a semisubmersible is known as the _____.                           | swivel fairlead                                     | windlass wildcat                         | chain stopper   | chain director  |        |
| 4 | 5485 | B | The maximum angular tolerance for a bent link of an anchor chain is _____.  | 1 degree  | 3 degrees                                | 5 degrees   | 7 degrees   |        |
| 4 | 5486 | C | This illustration shows the correct method of securing a _____.   | man-rope  | frapping line                            | sea painter   | lifeline  | D009SA |
| 4 | 5487 | B | A measurement device for inspecting anchor chain is the _____.  | slide rule  | go-no-go gauge                           | derrick tape  | amp probe   |        |
| 4 | 5491 | B | The American Petroleum Institute recommends that a new anchor chain should be inspected after being in service for _____.         | 1 year  | 3 years                                  | 5 years   | 10 years  |        |
| 4 | 5493 | B | The American Petroleum Institute recommends that connecting links and anchor shackles be inspected using _____.                   | visual examinations                                 | magnetic particle inspection             | dye penetrant inspection  | x-ray inspection                                      |        |
| 4 | 5495 | A | Extended cyclical variations in tensions will cause an anchor chain to break due to _____.  | fatigue   | corrosion                                | distortion  | abrasion  |        |
| 4 | 5497 | C | Which grade of anchor chain is generally used on floating drilling vessels?   | Grade 1   | Grade 2                                  | Oil Rig Quality (stud link)   | 303S  |        |
| 4 | 5501 | A | What is a major disadvantage of Di-Lok chain compared with Oil Rig Quality (stud link) chain in floating drilling rig operations? | Shorter fatigue life                                | Higher weight                            | Lower strength  | Greater expense                                       |        |
| 4 | 5503 | B | What are the two main types of stud link chain?   | Oil Rig chain and Oil Field Stud Link chain         | Flash-butt welded chain and Di-Lok chain | Flash-butt welded chain and Oil Rig chain                                       | Oil Field Stud Link chain and Flash-butt welded chain |        |
| 4 | 5504 | C | While signaling by flashing light you make an error. You should send _____.   | RPT, then repeat the entire signal                  | EEE, then send the word correctly        | the erase signal then continue the message with the last correctly spelled word | the correction signal and re-spell the word           |        |
| 4 | 5505 | D | Which problem is virtually impossible to detect during an in-service inspection of used mooring chain?                            | Cracks  | Elongation                               | Loose studs   | Fatigue   |        |

|   |      |   |   |  |  |  |  |         |
|---|------|---|---|--|--|--|--|---------|
| 4 | 5506 | B | The SS AMERICAN MARINER has drafts of: FWD 13'-05", AFT 21'-03". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 88 tons of seawater.   | FWD 14'-01.8", AFT 20'-09.3"                             | FWD 14'-02.4", AFT 20'-08.7"                       | FWD 14'-03.0", AFT 20'-08.1"                     | FWD 14'-03.6", AFT 20'-07.5"                     |         |
| 4 | 5507 | C | The American Petroleum Institute recommends magnetic particle inspection for _____.   | anchor chain   | wire rope  | connecting links                                 | pendant wires                                    |         |
| 4 | 5508 | C | Your drafts are: FWD 17'-09", AFT 18'-03". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?   | 25.7 feet  | 26.0 feet  | 26.2 feet  | 26.4 feet  |         |
| 4 | 5511 | B | When inspecting anchor chain, the American Petroleum Institute recommends checking the length over 5 links every _____.   | 10 feet  | 100 feet   | 250 feet   | 500 feet   |         |
| 4 | 5513 | D | A link on an anchor chain should be replaced when wear or grinding of surface cracks has reduced the cross section area by _____.   | 4%   | 6%   | 8%   | 10%  |         |
| 4 | 5515 | A | What should be done after repairing a surface crack on a link of anchor chain by grinding?  | Examine the area by magnetic particle inspection         | Replace the chain in service                       | Galvanize the area                               | Post heat the area                               |         |
| 4 | 5517 | A | Grinding to eliminate shallow surface defects should be done _____.   | parallel to the longitudinal direction of the chain      | perpendicular to the direction of the anchor chain | diagonally across the link of the anchor chain   | around the circumference of the chain link       |         |
| 4 | 5518 | D | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 14'-04", AFT 17'-06". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.15 feet  | 1.25 feet  | 1.31 feet  | 1.48 feet  | ST-0180 |
| 4 | 5521 | D | Prior to magnetic particle inspection of anchor chain, the chain should be _____.   | degaussed  | demagnetized                                       | soaked   | sandblasted                                      |         |
| 4 | 5522 | B | Radiation spreads a fire by _____.  | transmitting the heat of a fire through the ship's metal | transferring heat across an unobstructed space     | burning liquids flowing into another space       | heated gases flowing through ventilation systems |         |
| 4 | 5523 | B | Before being certified by the American Bureau of Shipping, anchor chain must undergo _____.   | USCG inspection  | a breaking test                                    | x-ray inspection                                 | spectroanalysis                                  |         |
| 4 | 5525 | B | What does the proof test load of an anchor chain demonstrate?   | The breaking strength of the anchor chain                | Strength of the anchor chain to a specified limit  | Adequate holding power for new bottom conditions | Safe working load of the anchor chain            |         |

|   |      |   |   |  |  |   |  |  |
|---|------|---|---|--|--|---|--|--|
| 4 | 5527 | B | With adaptor blocks/chocks in place on an LWT stock anchor, the trip angle will be _____.   | 20°  | 30°  | 40°   | 50°  |  |
| 4 | 5531 | D | With adaptor blocks/chocks removed from an LWT stock anchor, the trip angle will be _____.  | 20°  | 30°  | 40°   | 50°  |  |
| 4 | 5533 | B | Connecting elements of a mooring system should be fabricated from _____.  | cast iron  | forged steel   | stainless steel   | cast steel   |  |
| 4 | 5535 | A | What effect is achieved from soaking an anchor?   | It allows the bottom soil to consolidate.                          | It gives the palms time to trip the anchor.                        | It stabilizes the mooring system.                                   | It lubricates the anchor for better tripping.                |  |
| 4 | 5536 | D | On a vessel of 7000 tons displacement, a tank 35 ft. long, 30 ft. wide and 46 ft. deep is half filled with liquid cargo (S.G. 0.923) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank? | 3240   | 2731   | 2390  | 2024   |  |
| 4 | 5537 | A | Why should you soak an anchor?  | It can prevent the anchor from slipping during pretensioning.      | It will lubricate all the moving parts of a stock anchor.          | It will increase the maximum breaking strength of the anchor chain. | It will make it easier to disassemble the anchor for repair. |  |
| 4 | 5541 | A | What is the "holding power ratio" of an anchor?   | Maximum mooring line tension divided by the anchor's weight in air | Anchor's weight in air divided by the maximum mooring line tension | Preloading tension divided by the anchor's weight in air            | Operating tension divided by the anchor's weight in air      |  |
| 4 | 5543 | B | What happens ns to the efficiency of an anchor when it is moved from sand to mud?   | The efficiency increases.  | The efficiency decreases.  | The efficiency remains the same.                                    | The efficiency cannot be determined.                         |  |
| 4 | 5545 | A | When a combination chain and wire rope mooring line is used, the chain is deployed _____.   | at the anchor end of the line                                      | at the wildcat end of the line                                     | midway between the anchor and the wildcat                           | through the anchor buoy                                      |  |
| 4 | 5547 | D | In a combination chain and wire rope mooring system, the chain is deployed at the anchor end of the line to _____.  | increase fatigue life  | eliminate the need for mooring buoys                               | prevent the anchor from fouling                                     | increase the catenary  |  |
| 4 | 5551 | A | Anchor shackles should have a breaking strength that is _____.  | equal to the chains they are connecting                            | 25% more than the chains they are connecting                       | 50% more than the chains they are connecting                        | 100% more than the chains they are connecting                |  |
| 4 | 5553 | C | The angle between the flukes and the shank of an anchor is called the _____.  | holding angle  | fleet angle  | fluke angle   | shank angle  |  |
| 4 | 5555 | A | The fluke angle of an anchor system is the angle between the _____.   | flukes and the shank   | shank and the sea bottom   | mooring line and the sea bottom                                     | flukes and the shackle                                       |  |

|   |      |   |  |   |   |  |  |         |
|---|------|---|--|---|---|--|--|---------|
| 4 | 5557 | B | The holding power of an anchor is the _____.   | maximum sustained vertical load an anchor will resist before dragging | maximum sustained horizontal load an anchor will resist before dragging | maximum sustained vertical load an anchor will resist before the mooring line breaks | maximum sustained horizontal load an anchor will resist before the mooring line breaks |         |
| 4 | 5561 | D | What line receives the hardest service in the mooring system?  | Guy wire  | Joining pendant   | Wildcat leader   | Anchor pendant   |         |
| 4 | 5563 | B | Most large anchors are manufactured with a _____.  | bow type shackle  | D-type shackle  | U-type shackle   | Kenter shackle   |         |
| 4 | 5565 | D | What is the bow type anchor shackle primarily used for?  | Chain to chain connections  | Chain to anchor connections   | Kenter link to anchor connections  | Wire rope connections  |         |
| 4 | 5567 | C | What is the most important difference between the bow type anchor shackle and the D-type anchor shackle?   | The bow type shackle provides a superior connection.                  | The D-type shackle is weaker than the bow type.                         | The bow type shackle is weaker than the D-type.                                      | The D-type shackle provides an inferior connection.                                    |         |
| 4 | 5568 | C | You are tending the lifeline of a man who entered a compartment using a breathing apparatus. How many tugs on the lifeline indicate the man should back out?                   | 1   | 2   | 3  | 4  |         |
| 4 | 5571 | A | Which two components pass through the shank of an LWT anchor?  | Anchor shackle and stock  | Tripping palm and flukes  | Crown and chocks   | Swivel and stabilizer bar  |         |
| 4 | 5573 | A | To develop maximum anchor holding power, the optimum angle between the anchor's shank and the mooring lines is _____.  | 0 degrees   | 10 degrees  | 20 degrees   | 30 degrees   |         |
| 4 | 5574 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.                          | Available GM 2.8 ft   | Available GM 3.2 ft   | Available GM 3.5 ft  | Available GM 3.8 ft  | ST-0181 |
| 4 | 5575 | A | Increasing the area of the anchor flukes will _____.   | increase holding power  | decrease holding power  | make penetration more complete   | not effect holding power   |         |
| 4 | 5577 | B | What is the advantage of a single streamlined fluke anchor over a double fluked anchor of similar weight?  | It has multiple fluke angle settings.                                 | It has increased holding power.   | It holds well with either side down.   | It is easier to handle on an anchor boat.  |         |
| 4 | 5585 | B | Cable tension for catenary calculations is taken at the _____.   | chain locker  | fairlead  | anchor   | contact point of chain with seabed   |         |
| 4 | 5586 | B | Your drafts are: FWD 17'-09", AFT 21'-01". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships. | 5.1 feet forward  | 4.7 feet forward  | 2.6 feet aft   | 0.8 foot forward   |         |

|   |      |   |   |   |   |   |  |         |
|---|------|---|---|---|---|---|--|---------|
| 4 | 5587 | C | What is the primary disadvantage of a permanent chain chaser system?  | It requires anchor handling boats with more horsepower. | Chain chasers work in shallow water only.                           | Chain chasers will not work with piggyback anchors. | It takes longer to deploy anchors using chain chasers. |         |
| 4 | 5591 | B | The major cause of anchor buoy pendant wire failures is _____.  | corrosion   | rough weather   | defective sockets                                   | mishandling  |         |
| 4 | 5595 | B | An anchor winch should be equipped with mechanical brakes capable of holding _____.   | half the breaking strength of the mooring line          | the full breaking strength of the mooring line                      | the maximum expected tension of the mooring line    | 50% over the working tension of the mooring line       |         |
| 4 | 5597 | A | A chain stripper is used to _____.  | prevent chain from clinging to the wildcat              | clean the marine debris from the chain                              | flake chain from a boat's chain locker              | clean chain prior to an x-ray inspection               |         |
| 4 | 5598 | C | Fire dampers prevent the spread of fire by _____.   | direct contact  | radiation   | convection  | conduction   |         |
| 4 | 5601 | B | Your semisubmersible drilling unit is moving onto a location in shallow water with a very hard bottom. What is the most effective means of maintaining your position at this location during severe weather?    | Running out all the anchor chain available              | Piggyback all anchors and pretension to above the expected tensions | Install fluke angle blocks on all your LWT anchors  | Remove fluke angle blocks on all your LWT anchors      |         |
| 4 | 5603 | B | The full period of motion of the DEEP DRILLER while in transit is 7 seconds and the maximum pitch angle as seen on the inclinometers is 4 degrees. From the standpoint of critical motion, the motion is _____. | unsatisfactory, change course and speed                 | satisfactory, continue transit                                      | unsatisfactory, ballast to survival draft           | unsatisfactory, place unit in standby                  |         |
| 4 | 5604 | A | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 2.4 ft                                     | Available GM 3.2 ft   | Available GM 3.5 ft                                 | Available GM 3.8 ft                                    | ST-0182 |
| 4 | 5605 | B | The full period of motion of the DEEP DRILLER while tripping is 10 seconds and the maximum pitch angle as seen on the inclinometer is 4 degrees. From the standpoint of critical motion, the motion is _____.   | unsatisfactory, place setback in the pipe racks         | satisfactory, continue tripping                                     | unsatisfactory, deballast to survival draft         | unsatisfactory, place unit in standby                  |         |
| 4 | 5611 | B | The full period of motion of the DEEP DRILLER while tripping is 8 seconds and the maximum pitch angle as seen on the inclinometers is 4 degrees. From the standpoint of critical motion, the motion is _____.   | unsatisfactory, place setback in the pipe racks         | satisfactory, continue tripping                                     | unsatisfactory, deballast to survival draft         | unsatisfactory, place unit in standby                  |         |
| 4 | 5615 | A | Structural stress levels in a MODU are the sum of loading stresses and stresses due to _____.   | environmental loads                                     | variable loads  | ballast loading                                     | mooring loads  |         |

|   |      |   |  |   |  |  |   |  |
|---|------|---|--|---|--|--|---|--|
| 4 | 5616 | D | You are tending the lifeline of a man who entered a tank using a breathing apparatus. How many tugs on the lifeline indicate that the man should come out immediately?   | 1   | 2  | 3  | 4   |  |
| 4 | 5617 | B | Structural stress on a MODU can be reduced by _____.   | lessening the effect of environmental forces      | even and symmetrical variable loading              | local concentration of heavy consumables                           | increasing the metacentric height   |  |
| 4 | 5623 | C | The full period of motion of the DEEP DRILLER while tripping is 10 seconds and the maximum pitch angle as seen on the inclinometers is 8 degrees. From the standpoint of critical motion, the motion is _____. | unsatisfactory, place setback in the pipe racks   | satisfactory, continue tripping                    | unsatisfactory, deballast to survival draft                        | satisfactory, place unit in standby   |  |
| 4 | 5625 | B | For a semisubmersible moored in heavy weather conditions, the leeward lines should be paid out, and the windward lines adjusted so that _____.   | the unit remains as close to the hole as possible | several weather lines carry about the same tension | at least 1,000 feet of chain lie along the bottom                  | the vertical component of chain tension at the lower fairlead is not excessive                  |  |
| 4 | 5627 | B | For a semisubmersible moored in heavy weather conditions, the weather lines should be adjusted so that several lines carry about the same tension, and the leeward lines are _____.                            | tensioned to reduce weather mooring line tensions | paid out to reduce weather mooring line tensions   | adjusted so that at least 1,000 feet of chain lie along the bottom | adjusted so that the vertical component of chain tension at the lower fairlead is not excessive |  |
| 4 | 5631 | A | In deballasting to survival draft because of extreme wind and wave loads, thrusters or propulsion, if available, should be used to _____.  | reduce windward mooring line tensions             | reduce leeward mooring line tensions               | increase leeward mooring line tensions                             | maintain constant mooring line tensions   |  |
| 4 | 5633 | B | In ballasting to survival draft, while in transit, due to extreme wind and wave loads, thrusters or propulsion, if available, should be used to _____.   | reduce windward mooring tensions                  | maintain vessel heading                            | maximize accelerations   | increase speed of advance   |  |
| 4 | 5637 | B | While in transit during heavy weather, the crew aboard a semisubmersible should be alert to repeated pounding of waves on the lower bracing. If necessary, the unit should be _____.                           | deballasted to a shallower draft                  | ballasted to survival draft                        | ballasted to a draft in which the KG exceeds the maximum allowed   | towed in the trough of the waves  |  |
| 4 | 5643 | B | When evacuating the DEEP DRILLER, preparations should include _____.   | putting the unit at transit draft                 | activating the emergency power system              | jettisoning all combustible materials                              | removing all tension from the mooring lines   |  |

|   |      |   |   |   |   |   |   |  |
|---|------|---|---|---|---|---|---|--|
| 4 | 5644 | B | You are operating an ocean-going vessel of 322 gross tons. If your vessel does NOT have an oily-water separator then she must have a fixed piping system to discharge oily ballast to a shore facility. This system must include _____. | containment capacity for at least 5 gallons at the tank vents | a means to stop each pump near the discharge outlet | at least two pumps that may be put in line      | at least two outlets accessible from the weather deck |  |
| 4 | 5645 | D | On a semisubmersible drilling unit, increasing riser tension reduces _____.   | list  | KM  | KG  | GM  |  |
| 4 | 5647 | A | On a semisubmersible drilling unit, increasing riser tension increases _____.   | KG  | GM  | KM  | free surface moments                                  |  |
| 4 | 5648 | C | The hydrostatic release on the inflatable liferafts on a fishing vessel must be _____.  | replaced annually   | tested monthly                                      | serviced annually                               | overhauled quarterly                                  |  |
| 4 | 5651 | A | On a semisubmersible drilling unit, decreasing riser tension reduces _____.   | KG  | KM  | GM  | free surface moments                                  |  |
| 4 | 5653 | C | On a semisubmersible drilling unit, decreasing riser tension increases _____.   | free surface moments  | KM  | GM  | KG  |  |
| 4 | 5655 | C | When the air temperature is just below 32°F, snow FIRST adheres to _____.   | surfaces near the waterline                                   | vertical surfaces                                   | horizontal surfaces                             | leeward surfaces                                      |  |
| 4 | 5665 | B | When clear ice is present while drilling, the vertical transverse moments of the DEEP DRILLER are increased by _____.   | 40,402 ft-long tons   | 42,255 ft-long tons                                 | 45,593 ft-long tons                             | 49,280 ft-long tons                                   |  |
| 4 | 5667 | D | When clear ice is present when the DEEP DRILLER is in transit, the vertical moments are increased by _____.   | 40,402 ft-long tons   | 42,255 ft-long tons                                 | 45,593 ft-long tons                             | 49,280 ft-long tons                                   |  |
| 4 | 5668 | B | Your drafts are: FWD 16'-02", AFT 18'-02". Use the blue pages of the Stability Data Reference Book to determine the MT1.  | 935 foot-tons   | 960 foot-tons                                       | 985 foot-tons                                   | 1000 foot-tons  |  |
| 4 | 5671 | C | When assuming the maximum ice weight accumulation on the DEEP DRILLER at survival draft, the vertical moments are increased by _____.   | 40,402 ft-long tons   | 42,255 ft-long tons                                 | 45,593 ft-long tons                             | 49,280 ft-long tons                                   |  |
| 4 | 5673 | C | The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.  | critical motion limits have been exceeded                     | waves approach within two feet of the spider deck   | the maximum wave height is less than 64 feet    | winds are greater than 70 knots                       |  |
| 4 | 5677 | A | The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.  | critical motion limits have not been exceeded                 | waves approach within two feet of the spider deck   | the maximum wave height is greater than 64 feet | winds are greater than 70 knots                       |  |
| 4 | 5681 | D | The DEEP DRILLER may remain at operating draft instead of deballasting to survival draft when _____.  | critical motion limits have been exceeded                     | waves approach within two feet of the spider deck   | the maximum wave height is greater than 64 feet | winds are less than 70 knots                          |  |

|   |      |   |   |  |  |   |   |         |
|---|------|---|---|--|--|---|---|---------|
| 4 | 5683 | A | You should consider placing the drilling operations of the DEEP DRILLER in standby when _____.  | sustained winds exceed 50 knots                                    | winds exceed 70 knots  | critical motion limits have been exceeded                         | waves are greater than 64 feet  |         |
| 4 | 5691 | D | In a storm, the windward lines of a MODU's mooring system provide _____.  | a positive righting moment   | an increase in KM  | a negative restoring force  | a positive restoring force  |         |
| 4 | 5693 | A | In a storm, the leeward lines of a MODU's mooring system will _____.  | pull the unit in the same direction that the weather is pushing it | pull the unit in the opposite direction that the weather is pushing it | tend to keep the unit on its original location over the well head | affect the unit's draft and inclination as maximum mooring tensions are reached |         |
| 4 | 5694 | B | What is the meaning of the signal QU RQ when sent by the International Code of Signals?   | This is the call sign of a vessel registered in Latvia.            | Is anchoring prohibited?   | Will you lead me to a safe anchorage?                             | Interrogative   |         |
| 4 | 5695 | A | The DEEP DRILLER is loaded as shown in Sample Load Form #4, (Drilling). In preparing for approaching heavy weather, the four leeward mooring lines are slacked. These actions reduce the _____.   | natural pitch period   | metacentric height   | height of the righting arm  | righting moment   |         |
| 4 | 5697 | D | The motion that can significantly increase mooring line tension is _____.   | pitch  | roll   | yaw   | sway  |         |
| 4 | 5701 | C | The vessel motion that can significantly affect mooring line tensions on a MODU is _____.   | roll   | yaw  | surge   | pitch   |         |
| 4 | 5702 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 2.8 ft  | Available GM 3.2 ft  | Available GM 3.5 ft   | Available GM 3.8 ft   | ST-0183 |
| 4 | 5705 | B | The design of a spring buoy helps _____.  | to retrieve the anchor   | to prevent chafing at the lower end of the pendant                     | to mark the rig's approach to the location                        | an anchor handling vessel back toward the rig                                   |         |
| 4 | 5707 | A | A mooring system that results in a spread system without anchor buoys is called a _____.  | permanent chusing system   | wire rope mooring system   | shepherd's crook mooring system                                   | spring buoy mooring system  |         |
| 4 | 5708 | C | On a vessel of 6500 tons displacement, a tank 30 ft. long, 32 ft. wide and 18 ft. deep is half filled with liquid cargo (S.G. 1.048) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank? | 1152   | 1336   | 2390  | 2731  |         |
| 4 | 5711 | C | Installing tandem anchors on the same mooring line is referred to as _____.   | doubling   | pretensioning  | piggybacking  | paralleling   |         |



|   |      |   |  |                |                           |                            |                  |  |
|---|------|---|--|----------------|---------------------------|----------------------------|------------------|--|
| 4 | 5713 | C | What pressure must a spring buoy, moored at a 500 foot depth, withstand?   | 100 psig       | 150 psig                  | 225 psig                   | 300 psig         |  |
| 4 | 5715 | D | What can cause a lack of oxygen in a chain locker?   | Absorption     | Osmosis                   | Evaporation                | Oxidation        |  |
| 4 | 5721 | D | Deficient oxygen content inside a chain locker can be detected with _____.   | litmus paper   | combustible gas indicator | oxygen breathing apparatus | oxygen indicator |  |
| 4 | 5722 | B | Your drafts are: FWD 21'-03", AFT 26'-00". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?  | 25.1 feet      | 25.4 feet                 | 25.7 feet                  | 26.0 feet        |  |
| 4 | 5725 | C | Given the same water depth and line tension, the catenary length of a 90 pound/foot mooring chain in comparison to the catenary length of a 19 pound/foot wire rope mooring line will be _____.                | longer         | identical                 | shorter                    | indeterminable   |  |
| 4 | 5727 | D | Given the same water depth and line tension, the length of the ground cable of a 90 pound/foot mooring chain compared to the length of the ground cable of a 19 pound/ft wire rope mooring line will be _____. | indeterminable | identical                 | shorter                    | longer           |  |
| 4 | 5731 | B | Given the same water depth and line tension, the catenary length of a 19 pound/foot wire rope mooring line in comparison to the catenary length of a 90 pound/foot mooring chain will be _____.                | shorter        | longer                    | identical                  | indeterminable   |  |
| 4 | 5733 | A | Given the same water depth and mooring tension, the length of the ground cable of a 19 pound/foot wire rope mooring line in comparison to a 90 pound/foot mooring chain will be _____.                         | shorter        | identical                 | longer                     | indeterminable   |  |
| 4 | 5735 | B | Given the same water depth and mooring tension, the holding power of a 90 pound/foot chain mooring system in comparison to the holding power of a 19 pound/foot wire rope mooring line will be _____.          | weaker         | greater                   | equal                      | indeterminable   |  |
| 4 | 5737 | A | Given the same water depth and line tension, the holding power of a 19 pound/foot wire rope mooring system in comparison to the holding power of a 90 pound/foot chain mooring system will be _____.           | weaker         | equal                     | greater                    | indeterminable   |  |

|   |      |   |   |  |  |   |  |         |
|---|------|---|---|--|--|---|--|---------|
| 4 | 5741 | A | A device commonly used to secure the pendant wire when it is initially passed to an anchor handling vessel is _____.                                  | pelican hook   | connecting link  | shackle   | retaining hook   |         |
| 4 | 5743 | B | The safest device used to secure the end of the pendant wire when it is initially passed to the anchor handling vessel is a _____.                    | pelican hook   | hydraulic deck stopper   | connecting link   | shackle  |         |
| 4 | 5747 | C | If the water depth is 500 feet, the length of the pendant wire from the anchor to the buoy is typically _____.  | 400 feet   | 500 feet   | 600 feet  | 1000 feet  |         |
| 4 | 5751 | C | When piggybacking anchors, the distance between the primary anchor and the secondary anchor is determined by _____.                                   | bottom conditions  | anchor types   | water depth   | workboat winch capacity  |         |
| 4 | 5752 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM. | Available GM 2.8 ft  | Available GM 3.2 ft  | Available GM 3.5 ft   | Available GM 3.8 ft  | ST-0184 |
| 4 | 5753 | C | The length of chain between the anchor and the end of the pendant line is called the _____.   | pigtail chain  | thrash chain   | crown chain   | wear chain   |         |
| 4 | 5755 | B | Why are symmetric mooring patterns frequently used to keep MODU's on station?   | All lines contribute to the holding power of the mooring system. | Environmental forces will probably vary in direction during the time the MODU is on station. | Environmental forces will probably come from the same direction during the time the MODU is on station. | Governmental regulations require this mooring pattern unless an exemption is issued. |         |
| 4 | 5756 | D | Your drafts are: FWD 21'-03", AFT 21'-09". What is the KM based on the tables in the blue pages of the Stability Data Reference Book?                 | 26.5 feet  | 26.3 feet  | 25.8 feet   | 25.5 feet  |         |
| 4 | 5757 | B | What determines the minimum size of an anchor buoy?   | Environmental conditions   | Water depth  | Regulatory bodies   | Deck space on work boat  |         |
| 4 | 5763 | B | What is the purpose of a chain stopper?   | Stops the chain during pay out                                   | Secures the chain after it has been stopped  | Stops off a 6 foot section for inspection   | Hydraulically cuts anchor chain  |         |
| 4 | 5765 | A | Air gap is the vertical distance between the bottom of the hull and the _____.  | still water level  | wave crest   | wave crest plus the charted water depth and tidal corrections   | wave crest plus the charted water depth and tidal correction and storm surge         |         |
| 4 | 5767 | B | A shepherd's crook is used to _____.  | lower spring buoys into the water                                | find an anchor after the buoy has been lost  | transfer a pennant wire to the anchor handling boat   | clean chain as it is hauled into the rig   |         |

|   |      |   |  |   |  |                                   |   |         |
|---|------|---|--|---|--|-----------------------------------|---|---------|
| 4 | 5771 | D | A J-chaser is used to _____.   | transfer a pennant wire to the anchor handling vessel | clean chain as it is hauled into the rig | lower spring buoys into the water | retrieve an anchor after the buoy has been lost |         |
| 4 | 5781 | B | In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 600 feet water depth, the tensions in mooring line 1 and 2 are 400 kips. Completely slacking the mooring lines 5 and 6 reduces the tension in mooring lines 1 and 2 to about _____.  | 375 kips  | 330 kips                                 | 275 kips                          | 220 kips  |         |
| 4 | 5783 | B | In storm conditions in 600 feet of water, completely slacking the leeward mooring line of the DEEP DRILLER reduces the tension in that line to about _____.  | 25 kips   | 50 kips                                  | 75 kips                           | 100 kips  |         |
| 4 | 5785 | A | In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 600 feet water depth, the offset is 9%. Completely slacking mooring lines 5 and 6 reduces the offset to _____.   | 6.5%  | 5.0%                                     | 2.5%                              | 0.0%  |         |
| 4 | 5786 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.  | Available GM 2.8 ft                                   | Available GM 3.2 ft                      | Available GM 3.5 ft               | Available GM 3.8 ft                             | ST-0185 |
| 4 | 5787 | B | In storm conditions, with the wind and waves from the starboard bow of the DEEP DRILLER in 600 feet water depth, the offset is 8%. Completely slacking mooring lines 7 and 8 reduces the offset to _____.  | 6.5%  | 5.0%                                     | 2.5%                              | 0.0%  |         |
| 4 | 5791 | B | In storm conditions, with the wind and waves from the port bow of the DEEP DRILLER in 400 feet water depth, the tensions in mooring lines 1 and 2 are 400 kips. Completely slacking the mooring lines 5 and 6 reduces the tension in mooring lines 1 and 2 to about _____. | 375 kips  | 330 kips                                 | 275 kips                          | 220 kips  |         |
| 4 | 5793 | C | In storm conditions, with the wind and waves from the starboard bow of the DEEP DRILLER in 400 feet water depth, the offset is 7%. Completely slacking mooring lines 7 and 8 reduces the offset to _____.  | 6.5%  | 5.0%                                     | 4.0%                              | 2.5%  |         |

|   |      |   |   |  |  |   |  |  |
|---|------|---|---|--|--|---|--|--|
| 4 | 5795 | C | What is the length of the catenary when the DEEP DRILLER is anchored in 600 feet of water and the anchor line tension is 170 kips?  | 891 feet   | 1348 feet  | 1493 feet                                   | 1657 feet  |  |
| 4 | 5805 | C | A permanent chain chasing system is used to _____.  | clean anchor chain as it's hauled in                   | recover anchors which have lost their buoys          | run and retrieve anchors                    | prepare anchor chain for inspection                  |  |
| 4 | 5806 | C | Damage stability is the stability _____.  | which exists when the wind speed is less than 50 knots | before collision                                     | after flooding                              | at the maximum load                                  |  |
| 4 | 5905 | D | The signal for fire alarm on a MODU must be indicated _____.  | at each alarm bell                                     | at each alarm actuator                               | near all exits                              | on the Muster List ("Station Bill")                  |  |
| 4 | 5907 | A | The Muster List ("Station Bill") of a MODU must be signed by the _____.   | person in charge                                       | Coast Guard marine inspection officer                | company safety director                     | entire crew  |  |
| 4 | 5911 | D | What information must be entered on the MODU's muster list?   | Names of all crew members                              | Use and application of special equipment             | Listing of approved emergency equipment     | Duties and station of each person during emergencies |  |
| 4 | 5913 | C | If uniformly distributed in the cantilever pipe rack of the COASTAL DRILLER, how much pipe can be placed in the cantilever pipe rack area when the cantilever has been extended 40 feet aft of the transom?                                   | 630 kips   | 609 kips   | 500 kips                                    | 479 kips   |  |
| 4 | 5914 | B | On a vessel of 6500 tons displacement, a tank 35 ft. long, 25 ft. wide, and 8 ft. deep is half filled with liquid cargo (S.G. 1.053) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank? | 1152   | 1336   | 1371  | 16,036   |  |
| 4 | 5915 | D | What is the most vulnerable part of the fire main system on board an offshore rig?  | The fire pump  | Exposed hard piping                                  | The hydrant valve                           | The fire hose  |  |
| 4 | 5917 | A | What must be located on the discharge side of the pump in a fire main system?   | Pressure gauge   | Strainer   | Reduction valve                             | International shore connection                       |  |
| 4 | 5921 | B | Multiple fire pumps may be used for other purposes provided that one pump is _____.   | on line to the fire main                               | kept available for use on the fire main at all times | capable of being connected to the fire main | rated at or above 125 psi                            |  |
| 4 | 5923 | C | The relief valve on a fire pump is set at 25 psi above the pressure necessary to maintain required fire streams, or _____.  | 50 psi   | 75 psi   | 125 psi                                     | 150 psi  |  |

|   |      |   |   |                                   |  |  |                                      |         |
|---|------|---|---|-----------------------------------|--|--|--------------------------------------|---------|
| 4 | 5924 | D | The SS AMERICAN MARINER is ready to bunker with drafts of FWD 13'-10", AFT 16'-04". After all bunkers are on board, soundings indicate the tonnages shown. Use the white pages of The Stability Data Reference Book to determine the free surface correction. | 1.30 feet                         | 1.07 foot                                  | 0.96 foot  | 0.73 foot                            | ST-0187 |
| 4 | 5925 | B | When fire pumps are used for other than firefighting service, each pipe connecting the other service (except for branch lines used for deck washing) must have a _____.   | check valve installed in the line | shut off valve at a manifold near the pump | quick disconnect union within ten feet of the pump | regulator in the line set at 125 psi |         |
| 4 | 5927 | C | A fire main system must have enough fire hydrants so that each accessible space may be sprayed with _____.  | a low velocity spray applicator   | a water spray or solid stream              | at least two spray patterns of water               | at least 25 psi delivered pressure   |         |
| 4 | 5931 | C | If the charted water depth is 200 feet, the limits of service for the COASTAL DRILLER require an air gap of _____.  | 35 feet                           | 32 feet                                    | 30 feet  | 25 feet                              |         |
| 4 | 5933 | A | Each fire hydrant must have at least one spanner and at least one _____.  | hose rack or reel                 | all purpose nozzle                         | foam applicator                                    | pick axe                             |         |
| 4 | 5934 | D | You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline should you give to indicate that you need help?  | 1                                 | 2  | 3  | 4                                    |         |
| 4 | 5935 | B | The size of fire hydrant hose connections must be either 1-1/2 inches or _____.   | 1 inch                            | 2-1/2 inches                               | 3 inches   | 3-1/2 inches                         |         |
| 4 | 5936 | B | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 4.1 ft               | Available GM 4.3 ft                        | Available GM 4.7 ft                                | Available GM 5.1 ft                  | ST-0188 |
| 4 | 5941 | B | Each fire hydrant serving machinery spaces containing oil fired boilers, internal combustion machinery, or oil fuel units must be equipped with a _____.  | fireman's outfit                  | low-velocity spray applicator              | marine strainer                                    | pick axe                             |         |
| 4 | 5945 | A | Each part of the fire-main system located on an exposed deck must be _____.   | protected against freezing        | locked to prevent theft                    | numbered sequentially                              | pressurized at all times             |         |
| 4 | 5946 | C | The SS AMERICAN MARINER has drafts of: FWD 25'-11", AFT 26'-11". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 83 tons of seawater.   | FWD 26'-05.6", AFT 26'-07.5"      | FWD 26'-06.2", AFT 26'-06.9"               | FWD 26'-06.8", AFT 26'-06.3"                       | FWD 26'-07.7", AFT 26'-05.4"         |         |

|   |      |   |   |  |                                       |  |   |         |
|---|------|---|---|--|---------------------------------------|--|---|---------|
| 4 | 5947 | B | Each fire hose coupling on a MODU must have threads that meet the specifications of the _____.  | American Petroleum Institute             | National Standard Fire hose Coupling  | American Society of Mechanical Engineers | Underwriter's Laboratories, Inc.            |         |
| 4 | 5951 | C | Control valves of a CO2 system may be located within the protected space when _____.  | it is impractical to locate them outside | there is also a control valve outside | the CO2 cylinders are also in the space  | an automatic heat-sensing trip is installed |         |
| 4 | 5953 | D | The stamped full weight of a 100 lb. CO2 bottle is 314 lbs. What is the minimum weight of the bottle before it has to be recharged?   | 282 lbs.                                 | 294 lbs.                              | 300 lbs.                                 | 304 lbs.                                    |         |
| 4 | 5955 | D | After using a CO2 extinguisher on a MODU, it should be _____.   | put back in service if some CO2 remains  | hydrostatically tested                | retagged                                 | recharged                                   |         |
| 4 | 5957 | B | On a MODU, a CO2 extinguisher is checked by _____.  | reading the gage pressure                | weighing the extinguisher             | discharging a small amount of CO2        | seeing if the seal has been broken          |         |
| 4 | 5958 | B | You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline should you give to indicate that you are advancing?  | 1  | 2                                     | 3  | 4   |         |
| 4 | 5961 | C | A CO2 extinguisher on a MODU which has lost 10% of its charge must be _____.  | used at the earliest opportunity         | hydro-tested                          | recharged                                | weighed again in one month                  |         |
| 4 | 5962 | C | Your drafts are: FWD 25'-09", AFT 28'-03". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.              | 2.6 feet forward                         | 2.1 feet forward                      | at the center of flotation               | 0.8 foot aft                                |         |
| 4 | 5963 | D | On a MODU, CO2 extinguishers must be weighed _____.   | monthly                                  | quarterly                             | semiannually                             | annually                                    |         |
| 4 | 6003 | B | The minimum number of portable C-II fire extinguishers required on the drill floor of a MODU is _____.  | 1  | 2                                     | 3  | 4   |         |
| 4 | 6004 | C | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.                                       | Available GM 4.1 ft                      | Available GM 4.3 ft                   | Available GM 4.7 ft                      | Available GM 5.1 ft                         | ST-0189 |
| 4 | 6007 | A | On offshore drilling units, each hand-held portable fire extinguisher, semi-portable fire extinguisher, and fixed fire extinguisher must be tested and inspected at least once every _____. | 12 months                                | 24 months                             | 36 months                                | 48 months                                   |         |
| 4 | 6011 | C | On a MODU, hand portable extinguishers are size(s) _____.   | II only                                  | II and III                            | I and II                                 | I only                                      |         |
| 4 | 6013 | D | On a MODU, size III, IV, and V extinguishers are considered _____.  | hand portable                            | all purpose                           | fixed extinguishers                      | semi-portable                               |         |

|   |      |   |  |  |   |   |   |  |
|---|------|---|--|--|---|---|---|--|
| 4 | 6015 | C | On a MODU, size I and II extinguishers are considered _____.   | fixed systems  | steam generated   | hand portable   | semi-portable                                   |  |
| 4 | 6021 | C | Semi-portable extinguishers used on MODU's are sizes _____.  | II, III, and IV  | I, II, and III  | III, IV, and V  | IV and V  |  |
| 4 | 6022 | C | You are in a tank wearing a breathing apparatus and you desire to return topside. How many tugs of the lifeline mean "Take up slack"?  | 1  | 2   | 3   | 4   |  |
| 4 | 6023 | B | On a MODU, an extinguisher with 15 lbs. of CO2 or 10 lbs. of dry chemical is a size _____.   | I  | II  | III   | IV  |  |
| 4 | 6027 | C | On a MODU, firefighting equipment must be inspected once every _____.  | three months   | six months  | twelve months   | eighteen months                                 |  |
| 4 | 6031 | A | On a MODU, a fire drill shall be conducted once every _____.   | week   | month   | crew change   | other week                                      |  |
| 4 | 6033 | A | During a fire drill on a MODU, what action is required?  | Start each fire pump   | Launch and run a lifeboat                                   | Inventory rescue and fire equipment   | Inspect fire hoses                              |  |
| 4 | 6035 | B | On a MODU, watertight doors should be operated _____.  | during abandon drill   | during fire drill   | weekly  | when the rig is being moved                     |  |
| 4 | 6037 | A | When testing fire hoses on offshore drilling units, each hose must be subjected to a test pressure of at least _____.  | 100 psi  | 110 psi   | 120 psi   | 150 psi   |  |
| 4 | 6041 | B | On offshore drilling units, the fire main system must have enough fire hydrants so that each accessible space may be sprayed with at least _____.                            | one spray pattern  | two spray patterns  | three spray patterns  | four spray patterns                             |  |
| 4 | 6042 | B | Canvas sails, when not in use, may be damaged if _____.  | left in the sunlight   | stowed wet  | folded frequently   | washed with soap and water                      |  |
| 4 | 6047 | B | On offshore drilling units, each fire station is required to be fitted with a hose which has a nominal length of _____.  | 25 feet  | 50 feet   | 75 feet   | 100 feet  |  |
| 4 | 6049 | D | While proceeding to a distress site, you hear the words "Seelonce mayday" on the radiotelephone. Which action should you take?   | Resume base course and speed as your assistance is no longer required. | Acknowledge receipt and advise your course, speed, and ETA. | Relay the original distress message as no other vessel has acknowledged it. | Monitor the radiotelephone but do not transmit. |  |
| 4 | 6051 | A | The connection facilities for the international shore connection required on board offshore drilling units in international service must be located to provide access _____. | to each side of the drilling unit                                      | as close as possible to the control house                   | on the drill floor  | on each level of the accommodation space        |  |
| 4 | 6055 | C | How often are fire hoses required to be tested on a mobile offshore drilling unit?   | Once a week  | Once a month  | Once a year   | During each drill                               |  |

|   |      |   |   |                                    |  |   |   |         |
|---|------|---|---|------------------------------------|--|---|---|---------|
| 4 | 6061 | B | The international shore connection required on a MODU is designed to _____.   | permit discharge of waste oil      | allow hook up of fire fighting water from a dock or another vessel | satisfy pollution prevention requirements       | allow emergency use of the fire main for deballasting |         |
| 4 | 6065 | C | A fire pump on a MODU requires 175 psi discharge pressure to maintain the required 50 psi pitot tube pressure at the two highest hydrants. The maximum setting for the relief valve is _____. | 125 psi                            | 175 psi  | 200 psi   | 225 psi   |         |
| 4 | 6067 | B | On offshore drilling units fitted with fixed CO2 systems, the system must discharge at least 85 percent of the required amount of CO2 within _____.   | 1 minute                           | 2 minutes  | 3 minutes                                       | 4 minutes   |         |
| 4 | 6071 | B | On offshore drilling units fitted with fixed CO2 systems, the system must withstand a bursting pressure of at least _____.  | 5,000 pounds per square inch       | 6,000 pounds per square inch                                       | 8,000 pounds per square inch                    | 10,000 pounds per square inch                         |         |
| 4 | 6073 | A | Before releasing the CO2 into the space, the alarm for a fixed CO2 system must sound for at least _____.  | 20 seconds                         | 30 seconds   | 40 seconds                                      | 60 seconds  |         |
| 4 | 6074 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 4.1 ft                | Available GM 4.3 ft  | Available GM 4.7 ft                             | Available GM 5.1 ft                                   | ST-0190 |
| 4 | 6075 | A | On offshore drilling units fitted with CO2 systems, each space that contains a cylinder must be vented and designed to keep temperature in the space at not more than _____.                  | 130°F                              | 150°F  | 180°F   | 200°F   |         |
| 4 | 6076 | A | You are wearing a breathing apparatus inside a tank. How many tugs on the lifeline indicate that you are all right?   | 1                                  | 2  | 3   | 4   |         |
| 4 | 6077 | B | Operation of the valve control release on a fixed CO2 system must immediately _____.  | release CO2 to the protected space | secure all mechanical ventilation in the protected space           | sound the rig's general alarm signal for a fire | sound an alarm in the ballast control room            |         |
| 4 | 6083 | C | A fixed CO2 system on a MODU with a capacity of over 300 lbs (136 kilograms) CO2 which protects spaces other than tanks must have _____.  | two or more releasing stations     | automatic release in event of a fire                               | an audible alarm and time delay                 | an audible and visible alarm                          |         |
| 4 | 6084 | A | Your drafts are: FWD 20'-08", AFT 23'-03". Use the blue pages of the Stability Data Reference Book to determine the MT1.  | 1050 foot-tons                     | 1065 foot-tons   | 1090 foot-tons                                  | 1130 foot-tons  |         |



|   |      |   |   |  |  |                                    |                                     |         |
|---|------|---|---|--|--|------------------------------------|-------------------------------------|---------|
| 4 | 6085 | A | On a MODU, a fixed carbon dioxide or other approved system must be installed _____.   | where oil or chemical drums are stored                 | in all battery storage locations                         | in paint lockers                   | in all of the above locations       |         |
| 4 | 6087 | C | Portable Halon extinguishers used on MODU's may use _____.  | HALON 1301 only  | HALON 22 only  | HALON 1211 only                    | HALON 1301 or 1211                  |         |
| 4 | 6088 | A | What is the meaning of the signal DX RQ when sent by the International Code of Signals?   | Are you sinking?                                       | The call sign of a vessel registered in the Philippines. | The damage can be repaired at sea. | There are no tugs available.        |         |
| 4 | 6091 | A | Due to the hazards involved with Halon extinguishers on a MODU, the size II extinguisher may only be used _____.  | outside  | on class C fires   | in an emergency                    | on class B fires                    |         |
| 4 | 6093 | A | On offshore drilling units where foam systems are installed on the heliport, the system must be able to discharge continuously for at least _____.  | 5 minutes  | 6 minutes  | 8 minutes                          | 10 minutes                          |         |
| 4 | 6095 | A | Where foam extinguishing systems are provided on a MODU, each machinery flat in the protected space must have a(n) _____.   | coaming  | alarm  | drain                              | fire sensor                         |         |
| 4 | 6101 | C | What must be provided on a MODU helicopter deck that is equipped with fueling facilities?   | Fuel testing station                                   | Foam testing station                                     | Foam fire protection system        | Fire alarm                          |         |
| 4 | 6102 | B | The SS AMERICAN MARINER has on board 5480 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.79 feet                                     | LCG-FP 272.87 feet                                       | LCG-FP 274.04 feet                 | LCG-FP 275.13 feet                  | ST-0191 |
| 4 | 6105 | A | The primary danger in helicopter fires on a MODU is _____.  | burning jet fuel running on to quarters or other areas | loss of the mooring system                               | rotating and flying debris         | heat damage to helicopter structure |         |
| 4 | 6106 | D | The SS AMERICAN MARINER is ready to sail with the load shown. Use the white pages of The Stability Data Reference Book to determine the available GM.   | Available GM 4.3 ft                                    | Available GM 4.7 ft                                      | Available GM 5.1 ft                | Available GM 5.5 ft                 | ST-0192 |
| 4 | 6107 | D | The preferred agent used in fighting a helicopter crash fire on a MODU is _____.  | CO2  | dry chemical   | water                              | foam                                |         |
| 4 | 6115 | B | If a mobile offshore drilling rig has four hand portable fire extinguishers that can be recharged by personnel on the unit, how many spare charges must be carried?   | 1  | 2  | 3                                  | 4                                   |         |

|   |      |   |  |  |  |  |   |  |
|---|------|---|--|--|--|--|---|--|
| 4 | 6121 | B | The inspection of portable extinguishers on a MODU must be _____.  | accomplished by an authorized servicing representative         | recorded by the person in charge                                   | completed every six months   | All of the above  |  |
| 4 | 6123 | B | On offshore drilling units, the minimum required number of fireman's outfits which must be carried is _____.   | 1  | 2  | 3  | 4   |  |
| 4 | 6124 | A | On a vessel of 7000 tons displacement, a tank 35 ft. long, 30 ft. wide and 4 ft. deep is half filled with fuel oil (S.G. 0.962) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank? | 2,109  | 25,974   | 31,328   | 909,090   |  |
| 4 | 6125 | A | What is the minimum required number of fire axes that must be carried on a mobile offshore drilling unit?  | 2  | 3  | 4  | 5   |  |
| 4 | 6127 | B | On offshore drilling units, the minimum number of persons required to be trained in the use of fireman's outfits is _____.   | 1  | 2  | 3  | 4   |  |
| 4 | 6131 | B | How many fireman's outfits are required on a MODU?   | 1  | 2  | 3  | 4   |  |
| 4 | 6133 | C | What equipment is included in the fireman's outfit?  | Chemical protection face shield                                | Approved work vest   | Self contained breathing apparatus                                   | Marlinspike   |  |
| 4 | 6157 | A | Smoking in bed on a MODU is prohibited _____.  | at all times   | during evening hours   | unless another person is present                                     | during drilling operations                              |  |
| 4 | 6175 | B | It is the responsibility of the Master or person in charge of a MODU to ensure that _____.   | the Muster List ("Station Bill") is posted in each compartment | temporary personnel and visitors are advised of emergency stations | names of crew members are listed on the Muster List ("Station Bill") | no changes are made to the Muster List ("Station Bill") |  |
| 4 | 6177 | C | Fires on a MODU must be reported to the Coast Guard if there is death, injury resulting in more than 72 hours incapacitation, or property damage in excess of _____.   | \$ 5,000   | \$10,000   | \$25,000   | \$50,000  |  |
| 4 | 6187 | B | A fire in a ballast pumproom can be brought under control with minimal impact on stability by _____.   | cooling the outside bulkheads with water                       | shutting all sources of air into the compartment                   | closing the sea chest  | flooding the compartment with salt water                |  |
| 4 | 6191 | C | Fighting a rig fire in a watertight compartment with hoses could reduce the stability of the rig by _____.   | progressive downflooding                                       | reducing the level of drill water from the storage tanks           | causing a list due to the water in the compartment                   | reducing the KG to minimum allowable                    |  |
| 4 | 6193 | D | What is best suited for fighting a fire in a ballast control room?   | Automatic sprinkler system                                     | Steam smothering system  | Dry chemical system  | Carbon dioxide system                                   |  |

|   |      |   |   |   |   |  |  |  |
|---|------|---|---|---|---|--|--|--|
| 4 | 6195 | D | Each person on the rig has a designated area to proceed to in the event of a fire. This assignment is shown clearly on the rig's _____.                     | fire fighting plan  | shipping articles   | Certificate of Inspection                                | Muster List ("Station Bill")                                   |  |
| 4 | 6196 | B | You are tending the lifeline of a man who entered a compartment using a breathing apparatus. How many tugs on the lifeline indicate the man should advance? | 1   | 2   | 3  | 4  |  |
| 4 | 6197 | C | Fighting a rig fire in the ballast pumproom with hoses would adversely affect the stability of the rig most by _____.                                       | increasing the permeability of the pumproom   | reduction of drill water from the storage tanks                       | a list caused by water filling the compartment           | a reduced KG caused by water filling the compartment           |  |
| 4 | 6201 | B | The two courses of action if the underwater hull of a MODU is severely damaged are to plug the openings and to _____.                                       | dewater the compartment   | establish and maintain flooding boundaries                            | secure power to the compartment                          | counter flood to maintain even keel                            |  |
| 4 | 6213 | B | When patching holes in the hull of a MODU, pillows, bedding, and other soft materials can be used as _____.   | caulking  | gaskets   | strongbacks  | wedges   |  |
| 4 | 6225 | D | The procedure of strengthening damaged structures on a MODU by using wood or steel is called _____.   | bracing   | battening   | blocking   | shoring  |  |
| 4 | 6233 | A | When shoring a damaged bulkhead on a MODU, effort should be taken to spread the pressure over the _____.  | maximum possible area   | minimum possible area   | nearest watertight door                                  | nearest longitudinal girder                                    |  |
| 4 | 6241 | B | The objective of shoring the damaged area of a MODU is to _____.  | force the warped, bulged, or deformed sections back into place                            | support and hold the area in the damaged position                     | withstand subsequent additional damage                   | make a watertight seal at the damaged area                     |  |
| 4 | 6245 | A | On board a mobile offshore drilling unit, the key to the most rapid and effective response to a man overboard situation is _____.                           | well-conducted drills   | a dedicated crew  | good equipment   | good communication   |  |
| 4 | 6246 | C | The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?  | A fusible link will automatically open after a fire is extinguished and reset the damper. | Fusible links must be replaced at every inspection for certification. | Fusible links must be replaced if a damper is activated. | Fusible links are tested by applying a source of heat to them. |  |
| 4 | 6247 | B | Repair of structures on a MODU in the vicinity of liquid mud handling areas presents what possible hazard?  | Toxic gasses may be present.  | Flammable gasses may be present.                                      | Liquid muds may flood adjoining spaces.                  | An oxygen-deficient atmosphere may be present.                 |  |

|   |      |   |  |   |  |   |   |  |
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| 4 | 6248 | D | Your drafts are: FWD 26'-03", AFT 30'-08". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships. | 2.8 feet aft  | 2.3 feet aft   | 1.9 feet aft  | 1.5 feet aft  |  |
| 4 | 6249 | D | Automatic fire dampers in ventilation systems are operated by use of _____.  | heat or smoke detectors   | CO2 system pressure switches   | remotely operated valves  | fusible links   |  |
| 4 | 6251 | B | Explosive and flammable gasses are most likely to be encountered on a MODU _____.  | at any location   | on the drill floor and liquid mud handling areas   | in bulk storage tanks   | in machinery spaces   |  |
| 4 | 6253 | A | The Coast Guard requires machinery spaces and enclosed mud handling spaces to have _____.  | remote ventilation shutdowns                                    | remote pump shutdowns  | alternative control stations  | smoke and/or fire detection system  |  |
| 4 | 6255 | B | Control of fire on a MODU should be addressed _____.   | immediately after restoring vital services                      | immediately  | following control of flooding   | following establishment of fire boundaries  |  |
| 4 | 6257 | B | If there are a number of survivors in the water after abandoning a MODU, they should _____.  | tie themselves to the unit so they won't drift with the current | form a small circular group to create a warmer pocket of water in the center of the circle | send the strongest swimmer to shore for assistance  | form a raft by lashing their life preservers together   |  |
| 4 | 6261 | A | When should the emergency position-indicating radio beacon be activated after abandoning a MODU?   | Immediately   | After one hour   | Only when another vessel is in sight  | Only after sunset   |  |
| 4 | 6265 | D | During severe storms when survival becomes a major concern, it may become necessary to relieve high anchor tensions on the windward side of the unit by _____.                 | deballasting the rig  | ballasting the rig   | paying out cable on the windward side   | paying out cable on the leeward side  |  |
| 4 | 6271 | C | During storm conditions on a MODU, the mooring tensions should be adjusted so that _____.  | all mooring lines have a different tension                      | the leeward lines have higher tension than the windward lines                              | the maximum tension of the most heavily loaded line does not exceed the safe working load | all horizontal tension forces on the windward lines are no greater than the vertical tension forces |  |
| 4 | 6273 | A | During a storm, the chance of fatigue failure of a mooring line will increase as _____.  | vessel motions increase   | mooring tensions decrease  | KG increases  | KG decreases  |  |
| 4 | 6274 | D | You are fighting a class "B" fire with a portable dry chemical extinguisher. The discharge should be directed _____.   | at the main body of the fire                                    | to bank off a bulkhead onto the fire   | over the top of the fire  | at the seat of the fire, starting at the near edge  |  |

|   |      |   |   |  |   |  |  |  |
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| 4 | 6275 | A | During a storm, the mooring line on a MODU should be long enough so that the angle between the anchor shank and the ocean floor is _____.   | 0°   | 30°   | 60°                                      | 90°  |  |
| 4 | 6276 | B | Your drafts are: FWD 17'-09", AFT 18'-03". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.                          | 5.6 feet forward                                 | 5.1 feet forward  | at the center of flotation               | 0.8 foot aft   |  |
| 4 | 6277 | D | The SS AMERICAN MARINER has drafts of: FWD 22'-03", AFT 26'-05". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 77 tons of seawater. | FWD 22'-08.7", AFT 26'-02.2"                     | FWD 22'-09.3", AFT 26'-01.6"                                    | FWD 22'-09.9", AFT 26'-01.0"             | FWD 22'-10.5", AFT 26'-00.4"                         |  |
| 4 | 6291 | C | When dragging of an anchor occurs, you must either reposition it at greater range or _____.   | adjust the tensiometer                           | reduce the conductor tension                                    | use a piggyback (backing) anchor         | increase the riser tension                           |  |
| 4 | 6303 | A | The most doubtful and unpredictable factor in a mooring system is the _____.  | ability of the anchors to hold in a seabed       | anchor chain catenary length                                    | variability of the fairlead              | angle of the flukes                                  |  |
| 4 | 6305 | B | When dragging of an anchor occurs, you must back it up with a piggyback (backing) anchor or _____.  | reduce the riser tension                         | reposition it at a greater range                                | change the winch                         | change the anchor heading                            |  |
| 4 | 6306 | A | An inflatable liferaft is thrown into the water from a sinking vessel. What occurs automatically after the painter trips the CO2 bottles to inflate the raft?   | The sea anchor deploys.                          | The floor inflates.   | If upside down, the craft rights itself. | The painter detaches from the raft.                  |  |
| 4 | 6307 | D | Using high working tensions in the mooring system reduces the _____.  | hook load at drilling depths over 10,000 feet    | possibility of dragging anchors                                 | allowable deck load at operating draft   | margin between working tension and breaking strength |  |
| 4 | 6308 | D | You are underway at sea when a fire is reported in the forward part of the vessel. The wind is from dead ahead at 20 knots. You should _____.   | remain on course and hold speed                  | change course to put the wind on either beam and increase speed | remain on course but decrease speed      | change course and put the stern to the wind          |  |
| 4 | 6313 | A | The holding power of an anchor increases when the _____.  | amount of chain lying along the bottom increases | length of the catenary is reduced                               | mooring line tension is increased        | amount of chain lying along the bottom decreases     |  |
| 4 | 6387 | B | The vertical height and density of the drilling fluid are used to determine the _____.  | casing size                                      | hydrostatic pressure of the drilling fluid                      | presence of hydrogen sulfide gasses      | diameter of the well                                 |  |

|   |      |   |   |  |  |  |  |  |
|---|------|---|---|--|--|--|--|--|
| 4 | 6393 | C | Lost circulation can cause a kick or blowout by _____.  | creating a flow channel outside the casing and back to the surface | lowering the density of the drilling fluid | reducing the mud level in the well     | contaminating the drilling fluid                     |  |
| 4 | 6395 | C | The term "lost circulation" refers to situations when drilling fluid is lost by _____.  | overflowing the drill nipple                                       | making drill string connections            | flowing into drilled formations        | an overflow in the mud pits                          |  |
| 4 | 6397 | A | A well kick while drilling from a MODU will cause _____.  | increased fluid level in the mud pits                              | decreased fluid level in the mud pits      | increased cuttings on the shale shaker | decreased cuttings on the shale shaker               |  |
| 4 | 6401 | D | Why must the drilled hole be filled with drilling mud when tripping the drill string out of the hole?   | To maintain circulation to the mud pits                            | To compensate for MODU heave               | To keep the mud agitated               | To prevent reduction of fluid head on the formations |  |
| 4 | 6402 | A | Small passenger vessels in cold water ocean routes, that do not meet the standards for collision bulkheads or subdivision in subchapter S, must carry _____. (small passenger vessel regulations)   | 100% inflatable buoyant apparatus                                  | at least one hand fire pump                | at least two EPIRBs                    | All of the above.                                    |  |
| 4 | 6413 | B | While drilling ahead with 60 foot draft, the DEEP DRILLER encounters lost circulation and loses 900 bbls. of 16 pounds per gallon mud to the hole. How much ballast must be taken on to maintain 60 foot draft?   | 220 long tons  | 270 long tons                              | 330 long tons                          | 440 long tons  |  |
| 4 | 6415 | C | While drilling ahead with 60 foot draft, the DEEP DRILLER encounters lost circulation and loses 460 barrels of 16 pounds per gallon mud to the hole. What is the resulting draft if no additional ballast is taken on?                                  | 57 feet  | 58 feet                                    | 59 feet                                | 60 feet  |  |
| 4 | 6421 | B | While drilling at 4,000 feet with casing set to 2,000 feet, the well kicks with mud weight in the hole. Mud pumps are shut down and the blowout preventer is closed. Compared to the drilling situation, the pressure on the casing seat will be _____. | unchanged  | increased                                  | reduced                                | indeterminable                                       |  |
| 4 | 6423 | C | The most accurate method for measuring drilling mud required to fill the hole when drill stem is removed is by use of a _____.  | pit level change   | pump stroke count                          | trip tank                              | mud return flow indicator                            |  |
| 4 | 6425 | B | The test for determining the formation fracture pressure after drilling out a seat is called a _____.   | casing test  | leak off test                              | drill stem test                        | well test  |  |

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|---|------|---|---|---|---|---|---|
| 4 | 6426 | A | Your drafts are: FWD 21'-03", AFT 26'-00". Use the blue pages of the Stability Data Reference Book to determine the location of the center of flotation relative to amidships.                          | 2.8 feet forward  | 2.1 feet forward                              | 1.6 feet forward                            | 1.9 feet aft  |
| 4 | 6445 | C | What is the function of wearing rings found on some centrifugal pumps?  | Absorb erosion of high velocity discharge stream            | Seal pump shaft against entry of air          | Isolate the outlet side from the inlet side | Dampen the turbulent discharge flow                               |
| 4 | 6455 | A | Most drill ships and barges have a walled opening below the derrick, open to the water's surface and through which various drilling tools can pass down to the sea floor called a _____.                | moon pool   | spider deck opening                           | pontoon                                     | keyway  |
| 4 | 6467 | D | The series of valves used to control the return flow in well control operations is called the _____.  | valve assembly  | standpipe manifold                            | accumulator manifold                        | choke manifold  |
| 4 | 6473 | B | On an offshore drilling rig, the pumps which circulate drilling fluid through the drill string while drilling are called the _____.   | circulation pumps   | mud pumps                                     | centrifugal pumps                           | mixing pumps  |
| 4 | 6475 | C | The pneumatic containers which store bulk dry mud additives and cement on a MODU are called _____.  | mud hoppers   | bulk bins                                     | P-tanks                                     | mud tanks   |
| 4 | 6481 | C | In MODU operations, hoisting and lowering pipe in and out of the drilled hole is the main function of the _____.  | swivel  | cathead spool                                 | drawworks                                   | stand pipe  |
| 4 | 6483 | A | In a conventional drilling system, imparting rotation to the drill string is a function of the _____.   | rotary table  | swivel  | motion compensator                          | diverter  |
| 4 | 6485 | D | The main function of the drawworks on a MODU is to _____.   | transport tubulars from the pipe racks to the derrick floor | maintain constant tension on the marine riser | store and secure the excess drill line      | lower and hoist the drill string into and out of the drilled hole |
| 4 | 6487 | B | For most MODU engines, the fuel is _____.   | natural gas   | diesel oil                                    | propane                                     | bunker fuel   |
| 4 | 6491 | B | How wide must the safety net be that is required on the unprotected perimeter of the helicopter landing deck on a MODU?   | 1.0 meter   | 1.5 meters                                    | 2.0 meters                                  | 2.5 meters  |
| 4 | 6492 | A | The SS AMERICAN MARINER has drafts of: FWD 16'-10", AFT 19'-04". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 73 tons of seawater. | FWD 17'-05.8", AFT 18'-10.9"                                | FWD 17'-06.2", AFT 18'-10.4"                  | FWD 17'-06.8", AFT 18'-09.8"                | FWD 17'-07.4", AFT 18'-09.2"                                      |

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|---|------|---|--|----------------------------------|---|--|---|--|
| 4 | 6493 | D | A helicopter making a round trip from a helodeck with refueling capabilities to an unmanned platform will take 45 minutes each way. The helicopter should be carrying enough fuel to last _____. | 45 minutes                       | 1 hour and 15 minutes   | 1 hour and 30 minutes                        | 2 hours   |  |
| 4 | 6495 | C | A small fuel spillage has occurred during helicopter refueling. After the leak has been stopped and fire-control personnel have been notified and are standing by, the next step is to _____.    | proceed with fueling operation   | have helicopter move to a safer location                                      | wash spilled fuel away with a flood of water | clean spilled fuel with rags                                      |  |
| 4 | 6496 | B | In a water-tube marine type boiler, after the steam leaves the generating tubes, in what part of the boiler is temperature of the steam increased?   | Mud drum                         | Superheater   | Economizer                                   | Firebox   |  |
| 4 | 6497 | B | The only type of helicopter that may be refueled with the engine running and the blades turning is _____.  | a helicopter carrying cargo only | a turbine-equipped helicopter   | a Sikorsky                                   | a helicopter carrying injured personnel in an emergency situation |  |
| 4 | 6501 | A | At a refueling area or fuel facility, smoking or any flame or spark is prohibited _____.   | within 50 feet                   | anywhere on the helodeck  | during refueling operations                  | within 100 feet   |  |
| 4 | 6503 | D | If, during helicopter refueling operations, fuel is spilled on clothing, the person should first _____.  | see the medic immediately        | spray himself with foam or CO2  | complete his task and then see the medic     | remove the clothing and wash                                      |  |
| 4 | 6505 | C | A MODU helicopter landing deck on which fueling operations are conducted must have a fire protection system that is capable of discharging at 100 psi pressure a foam spray of at least _____.   | 30 gallons per minute            | 40 gallons per minute   | 50 gallons per minute                        | 60 gallons per minute   |  |
| 4 | 6507 | A | Especially in adverse weather, risk of collision with an offshore supply vessel increases when the vessel is moored to what side of the unit?  | Upwind                           | Downwind  | Crosswind                                    | Downcurrent   |  |
| 4 | 6513 | B | Consideration should be given in planning for the mooring orientation in a new location so that in adverse weather a crane is available to off-load the supply vessel on what side of the unit?  | Weather side                     | Leeward side  | Upwind side                                  | Crosswind side  |  |
| 4 | 6515 | D | While off-loading from an offshore supply vessel with the crane, the wind increases in strength and changes direction significantly, you should _____.   | expedite off-loading             | stop off-loading, but keep the offshore supply vessel in the present location | continue off-loading with no changes         | move the offshore supply vessel to the downwind side              |  |



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| 4 | 6517 | B | Prior to backloading portable tanks or drums onto an offshore supply vessel, check that each tank is _____.   | painted yellow with diagonal black striping          | capped and checked for leaks     | coated with non-corrosive protection                | mounted on pallets                                     |  |
| 4 | 6521 | A | When cargo aboard a jack-up in transit becomes adrift, the tow vessel should be asked to _____.   | turn into the seas                                   | turn to be parallel to the seas  | reduce speed  | increase speed   |  |
| 4 | 6523 | C | On the cargo manifest, the total weight of a box containing cargo is the _____.   | tare weight  | net weight                       | gross weight  | cargo weight   |  |
| 4 | 6525 | A | On the cargo manifest, the total weight of an empty cargo box is the _____.   | tare weight  | net weight                       | gross weight  | cargo weight   |  |
| 4 | 6527 | C | On the cargo manifest, the gross weight of a box containing cargo is the weight of the _____.   | cargo  | box                              | cargo and box                                       | rate weight  |  |
| 4 | 6531 | B | On the cargo manifest, the weight of the cargo inside a box is called the _____.  | gross weight   | net weight                       | light weight  | rate weight  |  |
| 4 | 6533 | A | When loading or discharging dry mud or cement, crew members should use facial respirator masks and _____.   | goggles  | ear plugs                        | soft-soled boots                                    | fireman's outfit                                       |  |
| 4 | 6537 | A | When pumping fuel between an offshore supply vessel (OSV) and a MODU, there must be direct VHF radio contact between the offshore supply vessel engineer and the _____. | person in charge of the fuel transfer                | crane operator                   | ballast control operator                            | barge superintendent                                   |  |
| 4 | 6543 | D | Corrosive liquids and acids should have what kind of label?   | Skull and crossbones                                 | Yellow                           | Red   | White  |  |
| 4 | 6545 | C | Flammable liquids should have what kind of label?   | Skull and crossbones                                 | Yellow                           | Red   | White  |  |
| 4 | 6547 | C | Nonflammable gases should have what kind of label?  | Skull and crossbones                                 | White                            | Green   | Red  |  |
| 4 | 6551 | C | When referring to quantity of barite in a P-tank, ullage is the _____.  | distance of the barite surface above the tank bottom | percentage of barite in the tank | distance of the barite surface below the tank cover | total weight of barite in UPC (ullages per centimeter) |  |
| 4 | 6553 | D | While taking on fuel oil from an offshore supply vessel, the transfer hose leaks, causing a sheen in the water. You should _____.                                       | continue transfer operations                         | repair the leak with duct tape   | reduce the rate of transfer                         | immediately shut down operations                       |  |
| 4 | 6555 | A | The chemicals in sacks aboard MODU's are palletized to reduce _____.  | labor in loading and handling                        | pilferage                        | marking and labeling                                | contamination  |  |
| 4 | 6563 | A | When loading or discharging dry mud or cement, crew members should use goggles and _____.   | facial respirator mask                               | ear plugs                        | rubberized boots                                    | fireman's outfit                                       |  |

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| 4 | 6567 | C | On offshore drilling units, the number of industrial personnel permitted to be on board during drilling operations is found on the _____.  | Classification Certificate                          | Safety of Life at Sea Certificate                        | U.S. Coast Guard Certificate of Inspection               | Owner's Operation Manual                                 |  |
| 4 | 6571 | B | To determine the number of portable fire extinguishers required on a mobile offshore drilling unit, you should check the _____.  | hot work permit                                     | Certificate of Inspection                                | Safety of Life at Sea Certificate                        | Operations Manual  |  |
| 4 | 6573 | C | To determine the number of industrial personnel allowed on a mobile offshore drilling unit, you should check the _____.  | Muster List ("Station Bill")                        | Safety of Life at Sea Certificate                        | Certificate of Inspection                                | Operations Manual  |  |
| 4 | 6575 | D | To determine the number of inflatable liferafts required on a mobile offshore drilling unit, you should check the _____.   | load line certificate                               | Operations Manual  | stability letter   | Certificate of Inspection                                |  |
| 4 | 6577 | B | According to the regulations for mobile offshore drilling units, "industrial personnel" are considered to be all persons carried on the MODU for the sole purpose of carrying out the industrial business of the unit, except for _____. | the operator's representative                       | the crew required by the Certificate of Inspection       | the galley personnel                                     | the designated person in charge                          |  |
| 4 | 6580 | A | The brickwork surrounding the firebox of a boiler is known as _____.   | refractory  | the screen wall  | the water wall   | fire plate   |  |
| 4 | 6581 | D | If a fixed foam firefighting system on a MODU is not of the premix type, a sample of the foam liquid must be tested by _____.  | a Coast Guard inspection officer                    | the safety man aboard the unit                           | the designated person in charge of the unit              | the manufacturer or his authorized representative        |  |
| 4 | 6583 | B | When weight-testing a davit-launched liferaft on a mobile offshore drilling unit, the test weight must be equivalent to the weight of the raft, its required equipment, and _____.   | 90% of the allowed capacity of persons for the raft | 100% of the allowed capacity of the persons for the raft | 110% of the allowed capacity of the persons for the raft | 120% of the allowed capacity of the persons for the raft |  |
| 4 | 6585 | B | When weight-testing a davit launched liferaft on a mobile offshore drilling unit, the deadweight equivalent for each person in the allowed capacity of the raft is _____.  | 155 pounds  | 165 pounds   | 175 pounds   | 185 pounds   |  |
| 4 | 6593 | C | What organization is approved by the Coast Guard for certifying cranes on mobile offshore drilling units?  | Minerals Management Service                         | International Maritime Organization                      | American Bureau of Shipping                              | Lloyd's of London  |  |
| 4 | 6594 | B | How many B-II fire extinguishers must be in the machinery space of a 175-foot long fishing vessel propelled by engines with 2500 brake horsepower?   | 2   | 3  | 4  | 5  |  |
| 4 | 6595 | D | How often must a rated load test be performed on a crane on a MODU?  | Every 12 months                                     | Every 24 months  | Every 36 months  | Every 48 months  |  |

|   |      |   |   |                                     |                                     |                                      |  |         |
|---|------|---|---|-------------------------------------|-------------------------------------|--------------------------------------|--|---------|
| 4 | 6603 | D | A weathertight door on a MODU must not allow water to penetrate into the unit in _____.   | 50 knot winds                       | 70 knot winds                       | 100 knot winds                       | any sea condition                      |         |
| 4 | 6604 | A | Fusible-link fire dampers are operated by _____.  | the heat of a fire melting the link | a break-glass and pull-cable system | electrical controls on the bridge    | a mechanical arm outside the vent duct |         |
| 4 | 6605 | B | All fire hoses on mobile offshore drilling units must be tested to a pressure of at least _____.  | 100 psi                             | 110 psi                             | 120 psi                              | 130 psi                                |         |
| 4 | 6607 | D | To determine the number of Able Seamen required on a mobile offshore drilling unit, you should check the _____.   | load line certificate               | Operations Manual                   | Safety of Life at Sea Certificate    | Certificate of Inspection              |         |
| 4 | 6611 | A | Any firefighting equipment that is carried in addition to the minimum required number on a MODU must _____.   | meet the applicable standards       | be marked as additional equipment   | be stowed in a separate area         | All of the above                       |         |
| 4 | 6613 | A | What class of bulkhead is required around the galley on a MODU?   | Class A                             | Class B                             | Class C                              | Class D                                |         |
| 4 | 6615 | B | Where are self-closing doors required on a MODU?  | In the galley                       | In each stair tower                 | To each sleeping room                | To the engine room                     |         |
| 4 | 6617 | C | On offshore drilling units, sleeping spaces for the regular personnel employed on board may not berth more than _____.  | two persons                         | three persons                       | four persons                         | five persons                           |         |
| 4 | 6618 | A | The SS AMERICAN MARINER has on board 6048 tons of cargo with an LCG-FP of 270.71 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 267.03 feet                  | LCG-FP 267.92 feet                  | LCG-FP 268.66 feet                   | LCG-FP 269.94 feet                     | ST-0193 |
| 4 | 6619 | C | The SS AMERICAN MARINER has on board 6450 tons of cargo with an LCG-FP of 270.89 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 267.12 feet                  | LCG-FP 268.48 feet                  | LCG-FP 270.97 feet                   | LCG-FP 273.06 feet                     | ST-0194 |
| 4 | 6621 | C | Locations on a MODU where flammable hydrocarbon gas or vapors may accumulate due to drilling operations are defined as _____.   | gaseous locations                   | hazardous locations                 | classified locations                 | designated locations                   |         |
| 4 | 6623 | A | Each hose in the fuel transfer system for helicopter refueling must have a _____.   | static grounding device             | quick-disconnect nozzle             | splash guard                         | vapor recovery system                  |         |
| 4 | 6625 | A | Each hose in the fuel transfer system for helicopter refueling must meet the standards of the _____.  | Federal Aviation Administration     | Corps of Engineers                  | National Fire Protection Association | National Transportation Safety Board   |         |

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| 4 | 6626 | C | Your drafts are: FWD 23'-03", AFT 24'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water. | 11,650 tons  | 11,800 tons   | 12,000 tons  | 12,250 tons                                  |  |
| 4 | 6627 | D | A cutoff valve in the fire-main system of a MODU may be closed to protect the portion of the system on an exposed deck from _____.                                  | damage from crane operations                           | being used for wash down purposes                     | accidental diversion of flow to wrong location         | freezing                                     |  |
| 4 | 6631 | A | All portable fire extinguishers must be capable of being _____.   | carried by hand to a fire                              | carried or rolled to a fire                           | recharged in the field                                 | used on class "B" fires                      |  |
| 4 | 6633 | C | For a MODU not on an international voyage, an approved substitute for an impulse projected rocket-type line throwing appliance is a _____.                          | spring loaded line thrower                             | hand thrown buoyant line                              | shoulder-type line throwing gun                        | heaving line                                 |  |
| 4 | 6635 | B | What is the minimum required number of ring life buoys on a MODU?   | 4  | 8   | 12   | 16   |  |
| 4 | 6637 | C | Of the required ring life buoys for a MODU, how many must be equipped with a water light?   | 1  | 2   | 4  | 8  |  |
| 4 | 6641 | B | On a MODU, how many ring buoys are required to have a buoyant line attached?  | One ring life buoy                                     | One ring life buoy on each side of the MODU           | Three ring life buoys                                  | Two ring life buoys on each side of the MODU |  |
| 4 | 6643 | D | How many adult life jackets are required on board a MODU?   | Enough for 100 percent of the persons allowed on board | One for each work station and industrial work site    | Enough for 150 percent of the persons allowed on board | Both A & B above                             |  |
| 4 | 6645 | D | Offshore drilling units that are on an international voyage must have a portable radio apparatus that meets the requirements of the _____.                          | American Bureau of Shipping                            | Minerals Management Service                           | U.S. Coast Guard                                       | Federal Communications Commission            |  |
| 4 | 6646 | D | Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.  | closing the compartment except for the ventilators     | increasing the air flow to the compartment by blowers | leaving the compartment open to the air                | completely closing the compartment           |  |
| 4 | 6647 | B | For means of abandonment of a MODU, which type of embarkation does not require prior approval by the Coast Guard?   | Movable ladders  | Fixed ladders   | Safety booms   | Elevators                                    |  |
| 4 | 6651 | B | The factor of safety, based on the elastic limit of the material, for the forks used on power operated industrial trucks aboard a MODU must be at least _____.      | 2 to 1   | 3 to 1  | 4 to 1   | 5 to 1                                       |  |

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| 4 | 6653 | C | Diesel powered industrial trucks on a MODU that are provided with safeguards to the exhaust, fuel, and electrical systems are designated _____.                     | DEFE  | DE  | DS   | DES   |  |
| 4 | 6655 | D | Power operated cranes used on a MODU must not be powered by _____.  | diesel engines  | chargeable batteries                                  | electric motors                                  | gasoline engines  |  |
| 4 | 6657 | B | The design specifications for cranes and crane foundations on MODU's are set and published by the _____.  | American Society of Mechanical Engineers                  | American Petroleum Institute                          | Society of Petroleum Engineers                   | American Society of Civil Engineers                                     |  |
| 4 | 6660 | B | Your drafts are: FWD 24'-09", AFT 27'-02". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water. | 13,075 tons   | 13,350 tons   | 13,590 tons                                      | 13,700 tons   |  |
| 4 | 6661 | A | On a self-elevating drilling unit, draft marks must be located _____.   | near each corner of the hull                              | at frame O, port and starboard                        | at bow and stern on the centerline               | on each leg   |  |
| 4 | 6663 | B | A branch line valve of a fire extinguishing system on a MODU must be marked with the _____.   | maximum pressure allowed at that branch                   | name of the space or spaces which it serves           | date of the last maintenance inspection          | pressure needed to maintain an effective stream at that point           |  |
| 4 | 6665 | A | On a MODU, a cabinet or space containing the controls or valves for the fixed firefighting system must be _____.  | posted with instructions on the operation of the system   | ventilated and equipped with explosion-proof switches | painted with red and black diagonal stripes      | equipped with a battery powered source of emergency lighting            |  |
| 4 | 6667 | C | On a MODU, the locker or space containing the self-contained breathing apparatus must _____.  | be located in close proximity to the main control station | be equipped with battery powered emergency lighting   | be marked "SELF-CONTAINED BREATHING APPARATUS"   | All of the above  |  |
| 4 | 6671 | D | Each hand portable fire extinguisher on a MODU must be marked with _____.   | the name of the unit on which it is located               | the date that it was installed on the unit            | the names of the individuals qualified to use it | an identification number different from other extinguishers on the unit |  |
| 4 | 6673 | A | Each emergency light on a MODU must be marked with _____.   | the letter "E"  | an arrow pointing to the nearest exit                 | a no-smoking symbol                              | the word "DANGER"   |  |
| 4 | 6675 | B | According to the MODU regulations, the capacity of a liferaft is required to be marked _____.   | on the Muster List ("Station Bill")                       | on a sign next to the liferaft                        | on the Certificate of Inspection                 | in the Operations Manual  |  |
| 4 | 6677 | C | The instructions for launching lifeboats and liferafts on a MODU must be approved by the _____.   | lease operator  | Minerals Management Service                           | Coast Guard                                      | person-in-charge of the unit  |  |
| 4 | 6681 | D | On a MODU, a door that is required to be marked "KEEP CLOSED" is designed to _____.   | prevent the passage of flammable gases                    | prevent the passage of poisonous vapors               | delay the spread of heat and flames              | maintain watertight integrity   |  |

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|---|------|---|---|---|--|---|--|--|
| 4 | 6683 | D | How must each storage tank for helicopter fuel on a MODU be marked?   | DANGER - KEEP AWAY  | DANGER - EXPLOSIVE VAPORS  | DANGER - NO SMOKING   | DANGER - FLAMMABLE LIQUID  |  |
| 4 | 6684 | B | The SS AMERICAN MARINER has drafts of: FWD 19'-04", AFT 21'-02". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 68 tons of seawater. | FWD 19'-09.7", AFT 20'-10.0"                                      | FWD 19'-11.1", AFT 20'-09.4"   | FWD 19'-11.7", AFT 20'-08.8"  | FWD 20'-00.3", AFT 20'-08.2"   |  |
| 4 | 6685 | D | On a MODU, when may a work vest be substituted for a required life preserver?   | To replace a damaged life preserver                               | For use during fire drills   | For use during boat drills  | At no time   |  |
| 4 | 6686 | D | Your drafts are: FWD 24'-09", AFT 27'-02". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in salt water.                                      | 13,175 tons   | 13,350 tons  | 13,490 tons   | 13,620 tons  |  |
| 4 | 6687 | B | A MODU must have a self-contained breathing apparatus to be used as protection from gas leaking from a refrigeration unit. To meet this requirement, you may use _____.                                 | a gas mask certified by the Mine Safety and Health Administration | the same self-contained breathing apparatus required with the fireman's outfit | an oxygen breathing apparatus, provided that the device has been inspected within three years | a portable ventilation system that will provide a complete change of air every three minutes |  |
| 4 | 6693 | C | The litter on a MODU must be able to _____.   | carry at least two injured persons                                | float for at least two hours   | be used on the types of helicopters serving the unit  | All of the above   |  |
| 4 | 6695 | A | Each buoyant work vest on a MODU must be _____.   | Coast Guard approved  | marked with the name of the unit   | equipped with a water light   | All of the above   |  |
| 4 | 6697 | C | For use as protection from gas leaking from a refrigeration unit, each MODU must be equipped with a _____.  | portable ventilation system                                       | flame safety lamp  | self-contained breathing apparatus  | gas mask   |  |
| 4 | 6703 | D | The person-in-charge of a mobile offshore drilling unit must be designated by the _____.  | Coast Guard   | Minerals Management Service  | operator or his agent   | owner or his agent   |  |
| 4 | 6705 | D | The immersion suit requirements for MODU's apply to units operating in the Atlantic Ocean above _____.  | 20°North and below 20°South                                       | 25°North and below 25°South  | 30°North and below 30°South   | 32°North and below 32°South  |  |
| 4 | 6707 | D | The immersion suit requirements apply to MODU's operating in all waters above _____.  | 20°N and below 25°S   | 25°N and below 30°S  | 23°N and below 23°S   | 32°N and below 32°S  |  |
| 4 | 6711 | C | Immersion suits must be stowed _____.   | in the pilothouse   | on top of lockers  | where readily accessible  | on open deck areas   |  |

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|---|------|---|--|---|--|---|--|--|
| 4 | 6715 | C | The person in charge shall insure that each lifeboat on a MODU is lowered to the water, launched, and operated at least once every _____.                      | month   | 2 months   | 3 months  | 6 months   |  |
| 4 | 6721 | C | Each hand portable, semi-portable and fixed fire extinguishing unit on a MODU must be tested and inspected at least once every _____.                          | six weeks   | six months   | twelve months   | two years  |  |
| 4 | 6724 | C | In a water tube marine boiler, what protects the superheater tubes from the fires of combustion?   | Water-wall tubes  | Downcomers   | Screen tubes  | Water drums  |  |
| 4 | 6725 | B | The person responsible for maintaining clean and sanitary conditions in the accommodation spaces of a MODU is the _____.                                       | Chief Steward   | Master or person in charge   | Chief Engineer  | Tool Pusher  |  |
| 4 | 6731 | C | During the required periodic abandon ship drill aboard a MODU, each person not assigned duties in the muster list is _____.                                    | instructed in the use of portable fire extinguishers                    | shown a video demonstrating lifeboat launching   | instructed in the use of life jackets   | not required to attend the boat drill  |  |
| 4 | 6733 | C | The person in charge of a MODU shall insure that the fuel tank of each motor propelled lifeboat is emptied, and the fuel is changed at least once every _____. | 3 months  | 6 months   | 12 months   | 24 months  |  |
| 4 | 6735 | C | On a MODU, each EPIRB or SART must be tested at least once _____.  | each week   | every two weeks  | each month  | every two months   |  |
| 4 | 6737 | C | Each EPIRB required on a MODU shall be tested using the integrated test circuit and output indicator every _____.  | week  | two weeks  | month   | two months   |  |
| 4 | 6742 | A | With an approved combination nozzle, low-velocity fog is produced by _____.  | inserting an applicator in the nozzle                                   | putting the handle of the nozzle in the forward position   | directing a straight stream of water against the ship's structure   | the combination nozzle only when the water pressure exceeds 125 psi                      |  |
| 4 | 6743 | B | The required fireman's outfits required for MODU's are not to be used for any other purpose EXCEPT for the _____.  | oxygen and explosion meter when it is used for detection of flare gases | self-contained breathing apparatus, when used as protection from gas leaking from a refrigeration unit | boots and gloves that are made of rubber or electrically non-conductive material, if used when repairing electrical equipment | lifeline, if used by personnel entering a compartment which might be deficient of oxygen |  |
| 4 | 6745 | C | Fire axes required on MODU's must be stored in the enclosure for fire hoses with the location marked "_____".  | Fire Axe Location   | Hose Station No. ____  | Fire Station No. ____   | Firefighting Equipment   |  |
| 4 | 6747 | B | How many people on board a MODU must be trained in the use of the fireman's outfit?  | 1   | 2  | 3   | 4  |  |

|   |      |   |   |  |  |   |   |  |
|---|------|---|---|--|--|---|---|--|
| 4 | 6753 | C | If not attached to the nozzle, each low-velocity spray applicator on a MODU must be stowed _____.   | in a protected area on the main deck       | inside a machinery space near the entrance                 | next to the fire hydrant to which the fire hose is attached | on a rack inside the quarters near the entrance |  |
| 4 | 6755 | C | Each fireman's outfit and its spare equipment on a MODU must be stowed _____.   | in a locked cabinet in the machinery space | in an unlocked cabinet in the machinery space              | in a separate and accessible location                       | at a fire hydrant location                      |  |
| 4 | 6757 | C | On Offshore Drilling units, in addition to the life jackets stowed at each berth location, life jackets must be stowed at each work station and _____.                      | the mess room                              | each lifeboat  | each industrial work site                                   | each fire station                               |  |
| 4 | 6761 | D | Each distress signal and self-activated smoke signal must be replaced not later than the marked date of expiration, or, from the date of manufacture, not later than _____. | 6 months                                   | 12 months  | 24 months   | 42 months                                       |  |
| 4 | 6765 | C | A qualified person must be assigned as the second in command of a lifeboat on a MODU if the lifeboat has a capacity of more than _____.                                     | 20 persons                                 | 30 persons   | 40 persons  | 50 persons                                      |  |
| 4 | 6767 | B | A life preserver or buoyant work vest is required to be worn on a MODU when a person is _____.  | working on the rig floor                   | working over water   | working on the pipe racks                                   | operating line throwing equipment               |  |
| 4 | 6772 | C | Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in salt water.          | 12,750 tons                                | 12,900 tons  | 13,150 tons   | 13,250 tons                                     |  |
| 4 | 6785 | C | Each EPIRB required on a MODU shall be stowed in a manner which will permit _____.  | easy access to its storage compartment     | replacement of the battery without exposure to the weather | it to float free if the unit sinks                          | it to remain attached to the unit               |  |
| 4 | 6786 | C | The color of the signal flare sent up by a submarine to indicate an emergency is _____.   | white                                      | yellow   | red   | green   |  |
| 4 | 6791 | B | At the required fire drill conducted aboard a MODU, all persons must report to their stations and demonstrate their ability to perform the duties assigned to them _____.   | by the toolpusher                          | in the Muster List ("Station Bill")                        | by the person conducting the drill                          | at the previous safety meeting                  |  |
| 4 | 6792 | A | All portable fire extinguishers must be capable of being _____.   | carried by hand to a fire                  | carried or rolled to a fire                                | recharged in the field                                      | used on class "B" fires                         |  |



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| 4 | 6793 | B | The person on a MODU who is responsible for maintaining the engineering spaces in a clean and sanitary condition is the _____.   | Master, or person in charge                | Chief Engineer, or engineer in charge if no chief engineer is required | senior mechanic, or mechanic on duty if no senior mechanic designated | senior electrician, or electrician on duty if no senior electrician designated |  |
| 4 | 6795 | C | Mobile offshore drilling units not required to have an official logbook shall _____.   | maintain a logbook on Form CG-706          | not be required to maintain a logbook                                  | maintain an unofficial logbook  | report only major events to the OCMI   |  |
| 4 | 6797 | A | Where must you record the date of each emergency training drill conducted on a MODU?   | In the logbook                             | In the Operations Manual   | On the Certificate of Inspection                                      | On the muster list   |  |
| 4 | 6801 | D | Where must the Omster or person in charge of a MODU record the date of each test of emergency lighting and power systems and the condition and performance of the equipment? | On the Certificate of Inspection           | On the Muster List ("Station Bill")                                    | In the Operations Manual  | In either the official or unofficial log                                       |  |
| 4 | 6805 | A | The record of tests and inspection of fire fighting equipment on board a MODU must include _____.  | the name of the person conducting the test | the weight of the charge   | recommendations for the next test                                     | All of the above   |  |
| 4 | 6806 | C | A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.  | blows the fire back toward the vessel      | comes over the stern   | comes over the bow  | comes over either beam   |  |
| 4 | 6807 | C | The Master or person in charge of a MODU shall ensure the crane record book shows _____.   | the name of the crane operator             | an entry each time the crane is used                                   | date and result of each rated load test                               | the time of day of the test  |  |
| 4 | 6811 | A | A mobile offshore drilling unit crane certificate is required to be maintained _____.  | on the unit                                | in the company office  | on file with the OCMI   | on file with the American Bureau of Shipping                                   |  |
| 4 | 6813 | B | The Master or person in charge of a mobile offshore drilling unit shall ensure the crane record book shows _____.  | the name of the operator                   | the American Petroleum Institute name plate data                       | the average load in pounds each usage                                 | All of the above   |  |
| 4 | 6817 | D | How long must the records of tests and inspections of fire fighting equipment on board a MODU be retained on board?  | 6 months                                   | 1 year   | 3 years   | Until the next inspection for certification                                    |  |
| 4 | 6821 | D | How long shall the Master or person in charge of a MODU maintaining an unofficial logbook retain this logbook on board?  | 6 months                                   | 1 year   | 5 years   | Until the next inspection for certification                                    |  |
| 4 | 6823 | A | The Master or person in charge of a MODU is required to log _____.   | the date and hour of each fire drill       | the names of all persons on board                                      | only casualties which occur while underway                            | every event occurring on board   |  |
| 4 | 6825 | D | The Master or person in charge of a MODU is required to log _____.   | the names of all persons on board          | only the names of the crew members on board                            | only the names of passengers on board                                 | information on emergency training drills                                       |  |

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| 4 | 6827 | A | What must be entered in the unofficial logbook by the Master or person in charge of a mobile offshore drilling unit after conducting a fire drill?   | The condition of all fire fighting equipment, watertight door mechanisms, and valves used during each drill | The location of the unit at the time each drill is conducted                    | The name of each crew member who participated in the drill and their responsibilities | All of the above   |  |
| 4 | 6831 | A | After conducting an abandonment drill, the Master or person in charge of a MODU shall log _____.   | the names of crew members who participated in the drill   | the length of time that each motor propelled lifeboat was operated in the drill | the length of time the lifeboat was in the water                                      | the time it took to lower the boat                         |  |
| 4 | 6833 | C | If a drill required by regulations is not completed on a mobile offshore drilling unit, the Master or person in charge must _____.   | report this immediately to the OCMI   | report this immediately to the Commandant of the Coast Guard                    | log the reason for not completing the drill   | conduct two of the required drills at the next opportunity |  |
| 4 | 6837 | B | With regard to accommodation spaces on board mobile offshore drilling units, what must the Master or person in charge log?   | The name of each person berthed in each space   | The date of each inspection of each space                                       | The condition of each space at the beginning of a trip                                | The number of persons assigned to each space               |  |
| 4 | 6838 | D | What is an advantage of a steam turbine over a diesel for the main propulsion?   | Faster response from ahead to astern  | Less fuel consumption   | Cheaper initial installation cost   | Less weight per unit of horsepower                         |  |
| 4 | 6841 | B | What must the Master or person in charge of a MODU enter in the logbook after conducting an abandonment drill?   | The sea condition at the time of the drill  | Which survival craft was used   | The names of all crew members participating in the drill                              | The name of the lifeboatman in charge of each boat         |  |
| 4 | 6843 | B | With regard to the opening and closing of watertight integrity appliances not fitted with a remote operating control or alarm system, what must the Master or person in charge of a MODU enter in the logbook? | The time required to close the appliances   | The reason for opening or closing each appliance                                | The name of the person performing the opening and closing of such appliances          | The fact that the hull indicators functioned or not        |  |
| 4 | 6845 | A | After conducting a boat drill on a mobile offshore drilling unit, what must the Master or person in charge enter in the in the logbook?  | Any inoperative equipment and the corrective action taken   | The name of the lifeboatman in charge of each lifeboat                          | The location of the vessel at the time of the drill                                   | The time it took to lower the boat                         |  |
| 4 | 6847 | A | What must the Master or person in charge of a MODU enter in the logbook after conducting a boat drill?   | Which survival craft was used in the drill  | The number of each lifeboat not lowered during each drill                       | Only the number of each motor propelled lifeboat that is lowered                      | The length of time an oar propelled lifeboat is rowed      |  |

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|---|------|---|--|--|--|--------------------------------------|--|--|
| 4 | 6853 | C | Regulations require that line throwing equipment on mobile offshore drilling units be tested at regular intervals. What entry should be made in the logbook? | No entry is required unless it is an official logbook. | An entry is required only if there is a failure. | Only the date of the test            | The name of the person making the test         |  |
| 4 | 6855 | A | The Master or person in charge of a MODU shall ensure the crane record book shows the _____.   | date and description of each failure                   | average load in pounds for each usage            | total number of lifts for each usage | All of the above                               |  |
| 4 | 6856 | B | Fire dampers prevent the spread of fire by _____.  | conduction   | convection                                       | radiation                            | direct contact                                 |  |
| 4 | 6857 | C | Prior to getting underway, the Master or person in charge of a MODU must _____.  | conduct a fire drill                                   | conduct a boat drill                             | log the fore and aft draft marks     | test the emergency generator                   |  |
| 4 | 6858 | A | A hydraulic accumulator is designed to _____.  | store fluid under pressure                             | act as a fluid reservoir                         | provide overpressure relief          | replenish fluid to a system                    |  |
| 4 | 6861 | A | Prior to getting underway in fresh or brackish water, the Master or person in charge of a MODU must _____.   | log the density of the water                           | secure all overboard discharges                  | take on fresh water ballast          | clean the sides with fresh water               |  |
| 4 | 6863 | C | When are fore and aft draft readings required to be entered in the unofficial logbook of a MODU?   | Once a day   | Once a week                                      | Prior to getting underway            | Only when entering waters of different density |  |
| 4 | 6867 | D | When must the Master or person in charge of a MODU log the position of load line marks in relation to the surface of the water in the logbook?               | Once a day   | At the change of every watch                     | Only when in fresh or brackish water | Prior to getting underway                      |  |
| 4 | 6871 | A | Lifeboat winches on mobile offshore drilling units are required to be inspected and an entry made in the logbook. How often should this entry be made?       | Every 3 months   | Every 6 months                                   | Every year                           | Only after conducting a boat drill             |  |
| 4 | 6895 | B | Who is responsible for reporting a casualty to a mobile offshore drilling unit?  | The pilot  | The owner  | The surveyor                         | The engineer                                   |  |
| 4 | 6897 | B | Who shall insure that all records required by regulations are retained on board a mobile offshore drilling unit involved in a casualty?                      | Officer in Charge, Marine Inspection                   | Owner  | Pilot                                | Engineer                                       |  |
| 4 | 6901 | D | In the event of a casualty to a MODU, who is responsible to make records available to the Coast Guard official authorized to investigate the casualty?       | Officer in Charge, Marine Inspection                   | The person who caused the casualty               | The company man                      | The owner                                      |  |
| 4 | 6903 | B | The Master or person in charge of a MODU is required to submit a casualty report of an intentional grounding under what condition?                           | At the owner's discretion                              | If it creates a hazard to navigation             | If the grounding lasts over 48 hours | Under any condition                            |  |

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| 4 | 6905 | A | The Master or person in charge of a MODU is required to submit a casualty report of an intentional grounding when it _____.                                     | creates a hazard to the vessel  | will last longer than 24 hours   | will last longer than 48 hours  | occurs in international waters                    |  |
| 4 | 6907 | A | On offshore drilling units, notification shall be given to the Coast Guard of a casualty if a person is injured and unable to perform routine duties for _____. | any amount of time  | more than 24 hours   | more than 36 hours  | more than 72 hours                                |  |
| 4 | 6908 | B | Topside icing decreases vessel stability because it is usually off-center and _____.  | increases displacement  | increases the height of the center of gravity                                      | increases draft   | reduces the pocketing of free surface             |  |
| 4 | 6911 | C | According to regulations, a Master or person in charge of a MODU is required to submit a report of a loss of life _____.  | only when it happens while underway   | to the next of kin   | to the nearest OCMI   | to the nearest coroner                            |  |
| 4 | 6913 | C | According to regulations, a Master or person in charge of a MODU is required to submit a report of a loss of life _____.  | only when it happens while underway   | to the next of kin   | to the nearest Marine Safety or Marine Inspection Office  | to the nearest coroner                            |  |
| 4 | 6915 | A | When a MODU is involved in a casualty, the cost of property damage includes _____.  | the cost of labor and material to restore the property to the service condition which existed prior to the casualty | the loss of revenues while the unit is being repaired, up to a maximum of \$50,000 | the damage claims awarded to individuals or companies involved in the casualty, up to a maximum of \$50,000 | All of the above                                  |  |
| 4 | 6917 | C | Injuries resulting in loss of life or incapacitation, aboard vessels, must be reported to the _____.  | Minerals Management Service   | American Petroleum Institute   | U.S. Coast Guard  | International Association of Drilling Contractors |  |
| 4 | 6921 | B | The notice of casualty to a MODU must include _____.  | a request for assistance  | the location of the unit at the time of the casualty                               | an estimate of the cost to repair damages   | the amount of fuel remaining                      |  |
| 4 | 6925 | B | After a report of casualty to a mobile offshore drilling unit, what record must be kept on board?   | The Oil Record Book   | The crane record book  | All chart catalogs  | The machinery maintenance logbook                 |  |
| 4 | 6927 | A | Records which must be retained on board after report of casualty to a MODU include the _____.   | tour reports  | hull reports   | machinery repair record book  | deck equipment log                                |  |
| 4 | 6931 | D | A report of casualty to a mobile offshore drilling unit must include _____.   | the estimated cost of damage to the unit  | an evaluation of who was at fault  | the amount of ballast on board  | the name of the owner or agent of the unit        |  |

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| 4 | 6933 | C | Under the regulations for mobile offshore drilling units, you must submit a casualty report for which occurrence?   | A man overboard                 | Property damage in excess of \$20,000                           | Accidental grounding                      | Loss of an emergency generator               |  |
| 4 | 6937 | C | A casualty report of an intentional grounding of a MODU is required under what condition?   | Under any condition             | If the grounding lasts over 24 hours                            | If it creates a hazard to the environment | At the owner's discretion                    |  |
| 4 | 6941 | A | On offshore drilling units, any reports of a casualty that are made are required to be retained on board for a period of at least _____.  | 3 months                        | 6 months  | 12 months                                 | 24 months                                    |  |
| 4 | 6943 | C | A written report of casualty to a MODU shall be made _____.   | within 12 hours of the casualty | to the Commandant of the Coast Guard                            | on Form CG 2692                           | only if the damage exceeds \$1,500           |  |
| 4 | 6945 | C | Which record must be retained on board after a report of casualty to a mobile offshore drilling unit?   | Oil Record Book                 | Chart catalogs  | Personnel list                            | Hull report                                  |  |
| 4 | 6946 | C | Your drafts are: FWD 20'-08", AFT 25'-03". Use the blue pages of the Stability Data Reference Book to determine the MT1.  | 1130 foot-tons                  | 1095 foot-tons  | 1070 foot-tons                            | 1025 foot-tons                               |  |
| 4 | 6947 | B | Which record must be retained on board after a report of casualty to a MODU?  | Preventive maintenance log      | Storage plans   | Oil Record Book                           | Repair record book                           |  |
| 4 | 6953 | A | After reporting a casualty to a mobile offshore drilling unit, which record must be retained on board?  | Record of drafts                | Hull reports  | Anchor record                             | Machinery repair book                        |  |
| 4 | 6955 | B | Regulations require certain records to be retained on board a MODU for how long after the report of a casualty?   | 1 month                         | 3 months  | 6 months                                  | 12 months                                    |  |
| 4 | 6957 | D | Regulations require certain records to be retained on board for at least 3 months after a MODU is involved in a casualty or until advised that they are no longer needed on board by the _____. | owner                           | Master  | person in charge                          | Officer in Charge, Marine Inspection         |  |
| 4 | 6961 | C | A report of casualty to a mobile offshore drilling unit must be made in writing to which office?  | Commandant of the Coast Guard   | Owner of the unit   | Nearest Coast Guard Marine Safety Office  | Captain of the nearest port                  |  |
| 4 | 6965 | B | In the case of a casualty involving a MODU, the Master, owner, agent or person in charge shall make the records required by regulation available upon request to _____.                         | anyone involved in the casualty | any Coast Guard official authorized to investigate the casualty | the local Captain of the Port             | All of the above                             |  |
| 4 | 6967 | D | A MODU must report a collision with an aid to navigation maintained by the Coast Guard to which office?   | Nearest Oceanographic office    | The Marine Safety Center at Coast Guard Headquarters            | National Ocean Service                    | Nearest Officer in Charge, Marine Inspection |  |

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| 4 | 6981 | A | The emergency power system for the DEEP DRILLER should be placed in operation when the weather forecast predicts winds greater than 90 knots and when _____.  | evacuating the unit                                  | ballasting   | deballasting   | unexpected list and trim exist                          |  |
| 4 | 6985 | B | The COASTAL DRILLER, while operating with minimal wave clearance, is inclined 0.5 degrees bow down. Lowering the stern may place the hull in the wave action. The recommended course of action is to _____. | prepare to take action in case inclination increases | jack the hull up on the bow leg                              | jack the hull down on the aft two legs                                     | transfer weight, such as drill water, toward the stern  |  |
| 4 | 6987 | C | Severe airway burns can cause _____.  | nausea   | reddening of cheeks  | complete obstruction of respiratory passages                               | nosebleed   |  |
| 4 | 6991 | B | The FIRST treatment of a person suspected of having airway burns is to _____.   | move him to a cool location                          | maintain an open airway                                      | apply a cool damp dressing to his neck                                     | have him drink cool liquids                             |  |
| 4 | 7003 | A | When treating a chemical burn, you should flood the burned area for at least _____.   | five minutes   | ten minutes  | fifteen minutes  | twenty minutes  |  |
| 4 | 7005 | A | Chemical burns are caused by the skin coming in contact with _____.   | acids or alkalies                                    | diesel oil   | acids, but not alkalies  | alkalies, but not acids                                 |  |
| 4 | 7006 | D | What is NOT a function of the steam drum of a marine water-tube boiler?   | Receives saturated steam from the generating tubes   | Serves as a reservoir of boiler feed water                   | Holds internal fittings for separation of moisture from steam              | Collects steam exhausted from the turbines              |  |
| 4 | 7007 | D | What precaution should be taken when treating burns caused by contact with dry lime?  | Water should be applied in a fine spray.             | The burned area should be immersed in water.                 | The entire burn area should be covered with ointment.                      | Before washing, the lime should be brushed away gently. |  |
| 4 | 7021 | D | The symptoms of heat exhaustion are _____.  | slow and strong pulse                                | flushed and dry skin   | slow and deep breathing  | pale and clammy skin                                    |  |
| 4 | 7023 | B | Heat exhaustion is caused by excessive _____.   | loss of body temperature                             | loss of water and salt from the body                         | gain in body temperature   | intake of water when working or exercising              |  |
| 4 | 7025 | A | A patient suffering from heat exhaustion should be _____.   | moved to a cool room and told to lie down            | kept standing and encouraged to walk slowly and continuously | given a glass of water and told to return to work after 15 minutes of rest | None of the above are correct                           |  |
| 4 | 7027 | C | To treat a person suffering from heat exhaustion, you should _____.   | administer artificial respiration                    | put him in a tub of ice water                                | give him sips of cool water  | cover him with a light cloth                            |  |
| 4 | 7031 | A | Symptoms of sugar diabetes include _____.   | increased appetite and thirst                        | decreased appetite and thirst                                | gain in weight   | elevated temperature                                    |  |
| 4 | 7032 | C | Overspeed of the diesel engine driving an electric generator could cause _____.   | low voltage trip                                     | reverse power trip   | damage to windings   | excessive exhaust temperatures                          |  |

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| 4 | 7033 | D | A person with diabetes has received a minor leg injured. The symptoms of the onset of a diabetic coma may include _____.  | reduced appetite and thirst                 | sneezing and coughing   | only a low grade fever  | slurred speech and loss of coordination                       |         |
| 4 | 7035 | B | If a diabetic suffers an insulin reaction and is conscious, he should be given _____.   | soda crackers and water                     | orange juice  | an ounce of whiskey   | a glass of milk   |         |
| 4 | 7037 | B | Epilepsy is a chronic nervous disorder characterized by _____.  | severe nausea and cramps                    | muscular convulsions with partial or complete loss of consciousness | sudden thirst and craving for candy   | severe agitation and desire to get out of closed spaces       |         |
| 4 | 7041 | D | A crew member is having an epileptic convulsion. You should _____.  | give the victim artificial respiration      | completely restrain the victim                                      | give the victim one 30 mg. tablet of phenobarbital                              | keep the victim from injuring him or herself                  |         |
| 4 | 7043 | B | While providing assistance to a victim of an epileptic seizure, it is most important to _____.  | give artificial respiration                 | prevent patient from hurting himself                                | keep the patient awake and make him/her walk if necessary to keep him/her awake | remove any soiled clothing and put the patient in a clean bed |         |
| 4 | 7046 | D | A fire has broken out on the stern of your vessel. You should maneuver your vessel so the wind _____.   | blows the fire back toward the vessel       | comes over either beam  | comes over the stern  | comes over the bow  |         |
| 4 | 7047 | C | What are symptom(s) of a ruptured appendix?   | Dilated pupils and shallow breathing        | Diarrhea and frequent urination                                     | Muscle tenseness in almost the entire abdomen                                   | Extreme sweating and reddening skin                           |         |
| 4 | 7051 | C | When a patient is suspected of having appendicitis, the primary action is to _____.   | give the patient a laxative to relieve pain | give the patient morphine sulfate to relieve pain                   | confine to bed until helicopter arrives   | give the patient aspirin with a glass of water                |         |
| 4 | 7052 | A | The SS AMERICAN MARINER has on board 4850 tons of cargo with an LCG-FP of 274.46 feet. See the distribution of the cargo to be loaded. Use the white pages of The Stability Data Reference Book to determine the final LCG-FP of the cargo. | LCG-FP 271.23 feet                          | LCG-FP 270.96 feet  | LCG-FP 269.52 feet  | LCG-FP 267.88 feet  | ST-0195 |
| 4 | 7053 | A | When a patient is suspected of having appendicitis, the pain should be relieved by _____.   | keeping an ice bag over the appendix area   | giving the patient a laxative                                       | giving the patient morphine sulfate   | giving the patient aspirin with a glass of water              |         |
| 4 | 7055 | C | Seasickness is caused by rolling or rocking motions which affect fluids in the _____.   | stomach                                     | lower intestines  | inner ear   | bladder   |         |

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| 4 | 7056 | B | Your drafts are: FWD 23'-03", AFT 27'-01". Use the blue pages of the Stability Data Reference Book to determine the vessels displacement if you are in fresh water. | 12,550 tons   | 12,900 tons   | 13,200 tons  | 13,350 tons   |  |
| 4 | 7057 | B | Symptoms of sea sickness include _____.   | fever and thirst  | nausea and dizziness  | stomach cramps and diarrhea  | reddening of skin and hives   |  |
| 4 | 7058 | D | Blocking open or removing fire dampers can cause _____.   | fixed foam systems to be ineffective  | faster cooling of the fire  | the accumulation of explosive gases  | the fire to spread through the ventilation system                                       |  |
| 4 | 7061 | B | The primary concern in aiding a back injury patient is _____.   | relieving the patient's pain by giving aspirin or stronger medication                                     | avoiding possible injury to the spinal cord by incorrect handling                               | preventing convulsions and muscle spasms caused by the pain                                  | providing enough fluids to prevent dehydration  |  |
| 4 | 7062 | A | You are aboard a liferaft in a storm. What should you do with your Emergency Position Indicating Radio Beacon?  | Bring it inside the liferaft and leave it on.   | Bring it inside the liferaft and turn it off until the storm passes.                            | Leave it outside the liferaft and leave it on.   | Leave it outside the liferaft but turn it off.  |  |
| 4 | 7063 | D | The symptoms of a fractured back are _____.   | leg cramps in the muscles in one or both legs   | pain and uncontrolled jerking of the legs and arms  | vomiting and involuntary urination or bowel movement   | pain at the site of the fracture and possible numbness or paralysis below the injury    |  |
| 4 | 7065 | B | What is the procedure for checking for spinal cord damage in an unconscious patient?  | Beginning at the back of the neck, and proceeding to the buttocks, press the spine to find where it hurts | Prick the skin of the hands and the soles of the feet with a sharp object to check for reaction | Selectively raise each arm and each leg and watch patient's face to see if he registers pain | Roll patient onto his stomach and prick along the length of his spine to check reaction |  |
| 4 | 7066 | B | What does blowing tubes accomplish?   | Eliminates unburned fuel oil residues from the firebox  | Increases boiler efficiency   | Flushes away mineral deposits inside the water tubes   | Cleans soot deposits from the inside of the stack                                       |  |
| 4 | 7067 | D | An effective method for moving patients with spinal injuries onto a spine board is known as the _____.  | pack-strap carry  | two man extremities carry   | fireman's drag   | four man log roll   |  |
| 4 | 7068 | A | Deballasting a double bottom has what affect on KG?   | KG is increased.  | KG is decreased.  | KG is not affected.  | KG increases at light drafts and decreases at deep drafts.                              |  |



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| 4 | 7071 | B | The sorting of accident victims according to the severity of their injuries is called _____.  | evaluation   | triage   | surveying  | prioritizing   |  |
| 4 | 7072 | C | The SS AMERICAN MARINER has drafts of: FWD 15'-06", AFT 18'-06". Use the white pages of the Stability Data Reference Book to determine the drafts if you ballast the forepeak with 62 tons of seawater. | FWD 15'-11.5", AFT 18'-02.7"                                   | FWD 16'-00.1", AFT 18'-02.1"                             | FWD 16'-00.7", AFT 18'-01.5"                     | FWD 16'-01.3", AFT 18'-00.9"                                       |  |
| 4 | 7073 | C | Where there are multiple accident victims, which condition should be the first to receive emergency treatment?  | Back injuries  | Major multiple fractures                                 | Suspension of breathing                          | Burns  |  |
| 4 | 7075 | D | Where there are multiple accident victims, which injuries should be the FIRST to receive emergency treatment?   | Major multiple fractures                                       | Eye injuries   | Back injuries with spinal-cord damage            | Airway and breathing difficulties                                  |  |
| 4 | 7077 | A | Where there are multiple accident victims, which type of injury should be the first to receive emergency treatment?   | Severe shock   | Eye injuries   | Burns  | Major multiple fractures   |  |
| 4 | 7081 | B | In managing a situation involving multiple injuries, the rescuer must be able to _____.   | provide the necessary medication                               | rapidly evaluate the seriousness of obvious injuries     | accurately diagnose the ailment or injury        | prescribe treatment for the victim                                 |  |
| 4 | 7083 | C | What can be determined about an injury from examining the condition of a victim's pupils?   | The degree of pain being suffered                              | The degree of vision impairment                          | Whether or not the brain is functioning properly | Whether or not the victim's blood pressure is normal               |  |
| 4 | 7093 | C | Normal mouth temperature is _____.  | 96.4°F   | 97.5°F   | 98.6°F   | 99.7°F   |  |
| 4 | 7096 | C | Convection spreads a fire by _____.   | transmitting the heat of a fire through the ship's metal       | burning liquids flowing into another space               | heated gases flowing through ventilation systems | the transfer of heat across an unobstructed space                  |  |
| 4 | 7097 | A | What is a convenient and effective system of examining the body of an injury victim?  | Check the corresponding (left versus right) parts of the body. | Watch the patient's eyes as you probe parts of the body. | Look for discoloration of the patient's skin.    | Look for uncontrolled vibration or twitching of parts of the body. |  |
| 4 | 7365 | C | What is the minimum required GMT for the DEEP DRILLER in winds less than 70 knots while at a draft of 60 feet?  | 0.17 foot  | 2.62 feet  | 4.34 feet  | 9.12 feet  |  |
| 4 | 7367 | D | Among the possible causes of unexpected rapidly increasing inclination of the DEEP DRILLER while on location is _____.  | consumption of on board variables                              | miscalculation of loads                                  | external environmental forces                    | flooding due to column damage                                      |  |
| 4 | 7371 | D | The condition where a MODU on the end of a tow line is riding a wave crest at the same time as its tug rides a wave crest is known as riding in _____.  | synchronism  | harmony  | check  | step   |  |

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| 4 | 7373 | C | When a semisubmersible rig under tow experiences pounding on the forward transverse brace, the surest way to alleviate the condition would be to _____.    | adjust the length of the tow line                 | have the tug slow down  | ballast down   | change course  |  |
| 4 | 7375 | B | When a semisubmersible rig under tow veers from side to side on its tow line, the best way of controlling the action is to _____.                          | trim by the bow                                   | trim by the stern   | play out stern anchor chain  | adjust the length of the towing bridle                             |  |
| 4 | 7377 | A | A semisubmersible rig under tow should be ballasted down if _____.   | motion begins to be excessive                     | water begins to break over the pontoons   | period of roll exceeds 12 seconds  | forward progress is halted by head wind                            |  |
| 4 | 7381 | D | One way to increase the period of roll on a semisubmersible rig while under tow is to _____.   | dump deck tanks into lower hulls                  | plug ballast tank vents   | head into the waves  | increase tank free surface   |  |
| 4 | 7385 | B | To assure safe boarding and launching of a davit-launched liferaft from a MODU, preparation should include _____.  | load testing the davit arm and the painter system | removing any side protective rails and checking that the overside and surface level are clear | testing the spring loaded drum to assure it will retract the fall release hook | testing to assure that the required lamps are functioning properly |  |
| 4 | 7387 | C | Prior to boarding from a MODU, a davit-launched liferaft should be well ventilated of excess _____.  | hydrocarbon gas                                   | carbon monoxide gas   | carbon dioxide gas   | freon gas  |  |
| 4 | 7388 | B | All marine low-speed diesels are of what design?   | Four-stroke                                       | Two-stroke  | Electronic ignition  | Forced exhaust   |  |
| 4 | 7391 | B | Personnel boarding a davit-launched liferaft from a MODU should be checked to assure they are not in possession of or wearing _____.                       | oil stained shoes or clothing                     | sharp objects that may puncture or damage the liferaft  | matches or cigarette lighters  | drugs or paraphernalia not approved by a medical doctor            |  |
| 4 | 7393 | C | When a davit-launched raft is lowered from a MODU, upon becoming waterborne, the raft is released by _____.  | activating the release lock of the hook           | pulling smartly on the knobbed cocking lanyard  | the effects of buoyancy removing the weight of the raft from the hook          | releasing the boarding flap and the bousing lines                  |  |
| 4 | 7395 | A | In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____. | there is burning oil on the water                 | there is a rescue craft in the area   | water temperature is below 40°F  | a rigid survival craft is in the area                              |  |
| 4 | 7397 | B | In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____. | there is a rescue craft in the area               | there is hydrogen sulfide present   | water temperature is below 40°F  | a rigid survival craft is in the area                              |  |

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| 4 | 7401 | C | In evacuation from a MODU, an individual without the option of a survival craft or liferaft should enter the water on the leeward side, except when _____.                | there is a rescue craft in the area   | water temperature is below 40°F                                  | there is a severe list to the windward side of the MODU                              | a rigid survival craft is in the area   |  |
| 4 | 7403 | A | If you must jump from a MODU, your posture should include _____.  | holding down the life preserver against the chest with one arm crossing the other, covering the mouth and nose with a hand, and feet together | knees bent and held close to the body with both arms around legs | body straight and arms held tightly at the sides for feet first entry into the water | both hands holding the life preserver below the chin, with knees bent, and legs crossed |  |
| 4 | 7405 | B | VHF Channel 6 is used exclusively for what kind of communications?  | Radio checks and time checks  | Inter-vessel safety and search and rescue                        | Working with helicopters   | Radio direction finding   |  |
| 4 | 7407 | D | Which VHF channel should you avoid using as a working channel?  | 7A  | 8  | 9  | 16  |  |
| 4 | 7411 | C | What is the spoken emergency signal for a distress signal over a VHF radio?   | Red Alert   | Security   | Mayday   | Pan   |  |
| 4 | 7412 | C | In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.   | ventilation   | radiation  | convection   | conduction  |  |
| 4 | 7413 | B | Which spoken emergency signal would you use to call a boat to come assist a man overboard?  | Distress signal   | Urgency signal   | Safety signal  | None of the above   |  |
| 4 | 7415 | D | What is the spoken emergency signal for a "man overboard" on the VHF radio?   | Man Overboard   | Security   | Mayday   | Pan-Pan   |  |
| 4 | 7417 | B | You receive a call from the U.S. Coast Guard addressed to all stations. The call begins with the words "Pan-Pan" (3 times). Which type of emergency signal would this be? | Safety signal   | Urgency signal   | Distress signal  | Red alert signal  |  |
| 4 | 7421 | B | After receiving your distress call, the U.S.C.G. may ask you to switch to which SSB frequency?  | 2570  | 2670   | 2770   | 2870  |  |
| 4 | 7427 | A | What is the expected range of a VHF radio transmission from a vessel to a shore station?  | About 20 miles  | 50 - 100 miles   | 100 - 150 miles  | 150 - 200 miles   |  |
| 4 | 7431 | D | What time of day would an SSB radio have the longest transmitting range?  | Daylight before noon  | At noon  | Daylight after noon  | During darkness   |  |
| 4 | 7575 | A | The upward pressure of displaced water is called _____.   | buoyancy  | deadweight   | draft  | freeboard   |  |

|   |      |   |  |  |  |  |   |  |
|---|------|---|--|--|--|--|---|--|
| 4 | 7577 | D | The value of the maximum righting arm depends on the position of the center of buoyancy and the _____.   | longitudinal center of gravity                                       | transverse center of gravity                                       | downflooding angle   | vertical location of the center of gravity                |  |
| 4 | 7578 | D | When a helicopter is lifting personnel from an enclosed lifeboat, the other individuals in the boat should _____.  | enter the water in case the person being lifted slips from the sling | stand on the outside of the boat to assist the person being lifted | remove their life preservers to prepare for their transfer to the helicopter | remain seated inside to provide body weight for stability |  |
| 4 | 7581 | A | For a given displacement, the righting arm has its maximum value when _____.   | KG is minimum  | angle of inclination is a maximum                                  | small-angle stability applies  | KM is a minimum   |  |
| 4 | 7583 | D | Stability is determined by the relationship of the center of gravity and the _____.  | water depth  | keel   | center of flotation  | center of buoyancy  |  |
| 4 | 7587 | D | The geometric center of the underwater volume is known as the _____.   | center of flotation  | tipping center   | center of gravity  | center of buoyancy  |  |
| 4 | 7591 | B | Stability is determined principally by the location of the center of gravity and the _____.  | aft perpendicular  | center of buoyancy   | keel   | center of flotation                                       |  |
| 4 | 7593 | A | The horizontal distance between the vertical lines of action of gravity and the buoyant forces is called the _____.  | righting arm   | metacentric height   | metacentric radius   | height of the center of buoyancy                          |  |
| 4 | 7595 | A | For a vessel inclined by the wind, multiplying the buoyant force by the horizontal distance between the lines of action of the buoyant and gravity forces gives the _____. | righting moment  | vertical moment  | longitudinal moment  | transverse moment   |  |
| 4 | 7597 | C | In small angle stability theory, the metacenter is located at the intersection of the inclined vertical centerline and a vertical line through _____.                      | G  | F  | B  | K   |  |
| 4 | 7601 | C | At all angles of inclination, the true measure of a vessel's stability is the _____.   | metacentric height   | displacement   | righting moment  | inclining moment  |  |
| 4 | 7603 | A | Initial stability refers to stability _____.   | at small angles of inclination                                       | when loaded with minimum deck load                                 | when at transit draft  | when GZ is zero   |  |
| 4 | 7605 | C | For small angles of inclination, if the KG were equal to the KM, then the vessel would have _____.   | positive stability   | negative stability   | neutral stability  | maximum stability   |  |
| 4 | 7607 | D | The difference between the height of the metacenter and the metacentric height is known as _____.  | righting arm   | metacentric radius   | height of the center of buoyancy   | height of the center of gravity                           |  |
| 4 | 7613 | A | GM cannot be used as an indicator of stability at all angles of inclination because _____.   | M is not fixed at large angles                                       | there is no M at large angles                                      | G is not fixed at large angles   | there is no G at large angles                             |  |

|   |      |   |  |   |   |   |  |  |
|---|------|---|--|---|---|---|--|--|
| 4 | 7617 | B | When a MODU is inclined at a small angle, the center of buoyancy will _____.   | remain stationary                                     | move toward the low side                                  | move toward the high side                               | move to the height of the metacenter                             |  |
| 4 | 7621 | A | Which statement is TRUE about metacentric height?  | It is a measure of initial stability.                 | It is located above the center of buoyancy.               | It is measured vertically above the center of buoyancy. | It's determination is the objective of the inclining experiment. |  |
| 4 | 7623 | B | The weight of the liquid displaced by a vessel floating in sea water is equal to the _____.  | weight required to sink the vessel                    | total weight of the vessel                                | displaced volume  | reserve buoyancy   |  |
| 4 | 7625 | A | The original equilibrium position is always unstable when _____.   | metacentric height is negative                        | KM is higher than KG                                      | KG exceeds maximum allowable limits                     | free surfaces are excessive                                      |  |
| 4 | 7631 | D | At an angle of loll, the capsizing moment is _____.  | maximum   | negative  | positive  | zero   |  |
| 4 | 7635 | D | At an angle of loll, the righting arm (GZ) is _____.   | maximum   | negative  | positive, but reflexive                                 | zero   |  |
| 4 | 7637 | D | When a floating MODU inclines to an angle slightly less than the angle of loll, she will _____.  | capsize   | incline less  | flop to the other side                                  | return to the angle of loll                                      |  |
| 4 | 7641 | C | In small-angle stability, when external forces exist, the buoyant force is assumed to act vertically upwards through the center of buoyancy and through the _____. | center of gravity                                     | center of flotation                                       | metacenter  | metacentric height   |  |
| 4 | 7643 | C | When a vessel is floating upright, the distance from the keel to the metacenter is called the _____.   | metacentric radius                                    | height of the baseline                                    | height of the metacenter                                | righting arm   |  |
| 4 | 7645 | B | What abbreviation represents the height of the center of buoyancy?   | BK  | KB  | CB  | BM   |  |
| 4 | 7647 | D | The abbreviation GM is used to represent the _____.  | height of the metacenter                              | righting arm  | righting moment   | metacentric height   |  |
| 4 | 7648 | B | Buoyant apparatus are required to be fitted or equipped with all of the following equipment EXCEPT _____. (small passenger vessel regulations)                     | life lines  | paddles   | water lights  | painters   |  |
| 4 | 7651 | C | When positive stability exists, GZ represents the _____.   | righting moment                                       | center of gravity   | righting arm  | metacentric height   |  |
| 4 | 7655 | D | In small angle stability, the metacentric height _____.  | is found in the hydrostatic tables for a level vessel | multiplied by the displacement yields the righting moment | is always positive                                      | is calculated by subtracting KG from KM                          |  |
| 4 | 7657 | C | The righting moment can be determined by multiplying the displacement by the _____.  | vertical center of gravity (KG)                       | longitudinal center of gravity (LCG)                      | righting arm (GZ)                                       | center of gravity (CG)   |  |
| 4 | 7663 | B | Subtracting KG from KM yields _____.   | BM  | GM  | GZ  | KG   |  |

|   |      |   |   |  |   |  |  |  |
|---|------|---|---|--|---|--|--|--|
| 4 | 7665 | B | Subtracting KG from KM yields _____.  | BL   | GM  | FS   | KG   |  |
| 4 | 7667 | D | Subtracting GM from KM yields _____.  | BL   | GM  | FS   | KG   |  |
| 4 | 7675 | B | To calculate the free surface correction, it is necessary to divide the free-surface moments by the _____.                    | total weight of liquid loads                               | total displacement  | lightweight  | deadweight   |  |
| 4 | 7677 | B | Reducing free surfaces has the effect of lowering the _____.  | uncorrected KG   | virtual height of the center of gravity                                     | metacenter   | metacentric height   |  |
| 4 | 7681 | B | The effects of free surface on initial stability depend upon the dimensions of the surface of the free liquids and the _____. | volume of liquid in the tank                               | volume of displacement of the MODU  | location of the tank in the MODU                   | height of the center of gravity of the MODU                                  |  |
| 4 | 7682 | B | One major disadvantage of a low-speed diesel as compared to a steam main-propulsion system is _____.                          | the extra weight required for the diesel reduction gearing | a minimum speed for the engines that limits the minimum speed of the vessel | the higher fuel consumption per SHP                | the low efficiency of the system when a controllable pitch propeller is used |  |
| 4 | 7683 | B | Increasing free surfaces has the effect of raising the _____.   | uncorrected KG   | virtual height of the center of gravity                                     | metacenter   | metacentric height   |  |
| 4 | 7685 | B | The free surface corrections depend upon the dimensions of the surface of the free liquids and the _____.                     | volume of liquid in the tank                               | displacement of the MODU  | location of the tank in the MODU                   | height of the center of gravity of the MODU                                  |  |
| 4 | 7687 | D | When displacement increases, the free surface moments of slack tanks _____.   | increase   | decrease  | are inversely proportional                         | remain unchanged   |  |
| 4 | 7693 | C | Increasing the number of slack liquid tanks has the effect of raising the _____.  | uncorrected KG   | maximum allowed KG  | virtual height of the center of gravity            | metacentric height   |  |
| 4 | 7695 | D | Adding the FSCL to KG yields _____.   | KM   | GM  | KGT  | KGL  |  |
| 4 | 7697 | C | The distance between the bottom of the hull and the waterline is called _____.  | tonnage  | reserve buoyancy  | draft  | freeboard  |  |
| 4 | 7701 | D | After transferring a weight forward on a vessel, the draft at the center of flotation will _____.                             | change, depending on the location of the LCG               | increase  | decrease   | remain constant  |  |
| 4 | 7703 | A | The average of the forward and after drafts is the _____.   | mean draft   | true mean draft   | mean of the calculated drafts                      | draft at the center of flotation   |  |
| 4 | 7713 | D | Your vessel is listing because of a negative GM. To lower G below M, you should _____.  | deballast  | transfer weight to the high side  | ballast on the high side                           | add weight symmetrically below G   |  |
| 4 | 7725 | B | Reserve buoyancy is the _____.  | unoccupied space below the waterline                       | volume of intact space above the waterline                                  | excess of the buoyant force over the gravity force | difference in the buoyant force in salt and fresh waters                     |  |
| 4 | 7727 | A | When flooding occurs in a damaged vessel, reserve buoyancy _____.   | decreases  | remains the same  | increases  | shifts to the low side   |  |

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|---|------|---|--|--|---|---|---|--|
| 4 | 7737 | D | The geometric center of the waterplane area is called the _____.   | center of buoyancy                     | center of gravity                               | metacenter                              | center of flotation                               |  |
| 4 | 7747 | D | In the absence of external forces, the center of gravity of a floating vessel is located directly above the _____.   | metacenter                             | amidships                                       | center of flotation                     | geometric center of the displaced volume          |  |
| 4 | 7785 | A | The result of multiplying a weight by a distance is a _____.   | moment                                 | force   | couple                                  | center of gravity location                        |  |
| 4 | 7786 | B | The straight stream capability of an all-purpose nozzle is used in fighting a class A fire to _____.   | shield fire fighters from radiant heat | break up burning material                       | get the most water possible on the fire | drive heat and smoke ahead of the fire fighters   |  |
| 4 | 7787 | B | A moment is obtained by multiplying a force by its _____.  | couple                                 | lever arm                                       | moment of inertia                       | point of application                              |  |
| 4 | 7805 | B | A tank with internal dimensions of 40 feet X 20 feet X 12 feet is pressed with fuel oil weighing 54 pounds per cubic foot. What is the weight, in short tons, of the liquid? | 518.4 short tons                       | 259.2 short tons                                | 135.0 short tons                        | 11.3 short tons                                   |  |
| 4 | 7841 | C | In a combination chain and wire rope mooring system, the anchor chain is deployed at the anchor end of the line to _____.  | increase fatigue life of the system    | reduce the time to retrieve the line            | increase the holding power              | reduce the catenary                               |  |
| 4 | 7843 | C | After putting on a self-contained breathing apparatus, you open the air supply and hear a continuous ringing of a bell. What does this mean?                                 | The unit is working properly.          | The face mask is not sealed properly.           | The air bottle needs to be refilled.    | The air supply hose has a leak.                   |  |
| 4 | 7845 | A | When the bypass valve of a self-contained breathing device is opened, the air flows _____.   | directly to the facepiece              | directly to the air supply bottle               | through the regulator                   | from the bottle into the atmosphere               |  |
| 4 | 7847 | B | When the mainline valve of a self-contained breathing apparatus is open, the bypass valve should be _____.   | completely open                        | completely closed                               | disconnected                            | partially opened                                  |  |
| 4 | 7951 | D | What is the chief advantage of an SCR or AC-DC system over a straight DC system for powering drilling rig machinery?   | Commutators are eliminated.            | Several machines can be operated from a DC bus. | SCR systems are simpler.                | Required power can be drawn from a common AC bus. |  |
| 4 | 7977 | C | Overspeed of the diesel engine driving an electric generator could cause _____.  | low voltage trip                       | reverse power trip                              | damage to windings                      | excessive exhaust temperatures                    |  |
| 4 | 8015 | B | In case of damage to the DEEP DRILLER on location, the immediate objective is to reduce the unexpected inclination and return the unit to _____.                             | nearest sheltered port                 | near its original draft                         | drilling                                | survival draft                                    |  |
| 4 | 8035 | A | When the wave period and the apparent rolling period of the MODU are the same _____.   | synchronous rolling occurs             | roll period decreases                           | roll period increases                   | roll amplitude is dampened                        |  |

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| 4 | 8036 | C | Radiation spreads a fire by _____.  | transmitting the heat of a fire through the ship's metal | burning liquids flowing into another space         | transferring heat across an unobstructed space              | heated gases flowing through ventilation systems                         |  |
| 4 | 8045 | D | At an angle of loll, the righting moment is _____.  | maximum  | negative   | positive  | zero   |  |
| 4 | 8047 | D | An "on-load" release system on a survival craft means the cable can be released _____.  | only when the load is taken off the cable                | only when there is a load on the cable             | only when activated by the controls at the lowering station | at any time  |  |
| 4 | 8051 | A | The "off-load" release system on a survival craft is designed to be activated _____.  | when there is no load on the cable                       | when there is a load on the cable                  | only when the doors are closed                              | when the engine is started   |  |
| 4 | 8053 | C | At a speed of 6 knots the fuel aboard a survival craft should last _____.   | 8 hours  | 12 hours   | 24 hours  | 48 hours   |  |
| 4 | 8054 | B | A thrust block is designed to _____.  | transmit the thrust of the engine to the propeller       | transmit the thrust of the propeller to the vessel | absorb the shock of wave pressure at the bow                | be placed between the engines and the foundation to absorb the vibration |  |
| 4 | 8055 | C | When inspecting a survival craft, you should check to make sure that the _____.   | sea anchor is deployed                                   | hydraulic starting system has been drained         | hydraulic pressure is within the specified range            | steering controls are locked   |  |
| 4 | 8061 | C | When drilling from a MODU the weight in air of tubular goods on the racks is reduced when run into the drilled hole because of the effect of _____.   | drill string compensators                                | formation pressure                                 | buoyancy of the mud   | vessel motion  |  |
| 4 | 8063 | C | Cartridge-operated dry chemical extinguishers used on MODU's should have the propellant cartridge weighed every _____.  | 3 months   | 6 months   | 12 months   | 2 years  |  |
| 4 | 8071 | A | It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the beam, the total environmental force would be _____. | 620 kips   | 595 kips   | 475 kips  | 425 kips   |  |
| 4 | 8073 | C | A person who holds a foreign license can serve as the ballast control operator to meet manning requirements on a MODU on waters outside U.S. jurisdiction until the _____.  | MODU's contract is completed                             | Certificate of Inspection is renewed               | MODU returns to a U.S. port                                 | Operations Manual is revised   |  |
| 4 | 8075 | D | A semisubmersible is more likely to experience structural stresses during heavy weather when _____.   | operating at drilling draft                              | deballasting to survival draft                     | when at survival draft                                      | when at transit draft  |  |



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| 4 | 8077 | C | Progressive flooding on a MODU is controlled by securing watertight boundaries and _____.  | transferring drill water                                      | dumping bulk materials  | pumping out flooded compartments  | evacuating the unit  |  |
| 4 | 8081 | C | What additional precautions should be taken when making temporary repairs to a MODU that is operating when hydrogen sulfide is present?  | Seal off all tank and compartment ventilation.                | Remove all bulk materials from the P-tanks.                             | Provide respiratory protection and monitoring.                                    | All of the above   |  |
| 4 | 8091 | C | When preparing a MODU for heavy weather, fuel oil day tanks should be _____.   | pumped overboard to calm the seas                             | drained to the lower hull to reduce free surfaces                       | filled to ensure that sufficient fuel oil is available during a lengthy emergency | partially drained to increase free surfaces in order to reduce motions |  |
| 4 | 8093 | A | What is the displacement of the DEEP DRILLER with a draft of 19.5 feet in fresh water?   | 11,932.8 long tons  | 12,232.8 long tons  | 12,602.9 long tons  | 18,919.8 long tons   |  |
| 4 | 8103 | A | The COASTAL DRILLER, elevated in 200 feet of water, has two knots of current and 70 knot winds. With a maximum leg reaction of 5,840 kips, the maximum wave height for drilling is _____.            | 20 feet   | 30 feet   | 35 feet   | 40 feet  |  |
| 4 | 8105 | A | What is the port leg reaction for the COASTAL DRILLER if the total weight is 15,000 kips, LCG is 120 feet, and TCG is 1.0?   | 4,909 kips  | 4,931 kips  | 4,950 kips  | 5,160 kips   |  |
| 4 | 8107 | B | What is the minimum required GML for the DEEP DRILLER in winds less than 70 knots while at a draft of 60 feet?   | 0.17 foot   | 2.63 feet   | 4.34 feet   | 9.12 feet  |  |
| 4 | 8115 | D | When two ballast pumps used for deballasting a single tank start cavitating, you should _____.   | open all valves on the discharge side to permit improved flow | close the valve on the discharge side of the pump to re-acquire suction | close the valve on the suction side of the ballast pump to re-prime the pump      | shut down one pump   |  |
| 4 | 8117 | C | While in transit, the DEEP DRILLER suffers flooding in the port pump room. Both port bilge pumps are inadequate to dewater the pump room. You may supplement the bilge pumps by using the _____.     | starboard ballast pump  | port saltwater service pump   | port drill water pump   | starboard ballast pump and crossover system                            |  |
| 4 | 8118 | C | Most medium and slow speed diesels are started by what medium?   | Electric starting motors                                      | Hydraulics  | Compressed air  | Ether  |  |
| 4 | 8121 | D | While at operating draft, the DEEP DRILLER suffers flooding in the port pump room. Both port bilge pumps are inadequate to dewater the pump room. You may supplement the bilge pumps with the _____. | starboard ballast pump and crossover system                   | port ballast pump   | port saltwater service pump   | port drill water pump  |  |

|   |      |   |  |  |                            |                          |  |  |
|---|------|---|--|--|----------------------------|--------------------------|--|--|
| 4 | 8123 | D | To effectively use the crossover system on the DEEP DRILLER to pump from the low side using a high side ballast pump, transverse inclinations should not exceed _____.   | 8°   | 6°                         | 4°                       | 2°                                     |  |
| 4 | 8125 | B | While in transit, the DEEP DRILLER suffers flooding in the starboard pump room. Both starboard bilge pumps are inadequate to dewater the pump room. You may supplement the performance of the bilge pumps by using the _____.                | starboard saltwater service pump           | starboard drill water pump | starboard ballast pump   | port ballast pump and crossover system |  |
| 4 | 8127 | C | The COASTAL DRILLER is loaded as shown in the Sample Load Form #1 (Rig Move). If the contents of #6 and #7 drill water tanks are discharged, what would be the new height of the transverse metacenter?                                      | 134.95 feet                                | 135.91 feet                | 136.38 feet              | 136.89 feet                            |  |
| 4 | 8131 | B | The COASTAL DRILLER is loaded as shown in Sample Load Form #3 (Drilling). What would be the new sum of longitudinal moments for the liquid variables if the entire contents of drill water tank #17 are transferred to drill water tank #18? | 181,648 ft-kips                            | 181,718 ft-kips            | 187,345 ft-kips          | 195,462 ft-kips                        |  |
| 4 | 8147 | A | The DEEP DRILLER has a KGL of 53.16 feet while at a draft of 58.0 feet. Although there are no environmental forces, trim is 2.0 feet by the stern. What is the value of LCG?   | 2.16 feet                                  | 2.26 feet                  | 2.36 feet                | 2.46 feet                              |  |
| 4 | 8151 | A | Laying down drill pipe from the derrick of a semisubmersible on location reduces the _____.  | natural roll period                        | metacentric height         | waterplane area          | righting moment                        |  |
| 4 | 8153 | D | The DEEP DRILLER, at a draft of 60 feet and a total vertical moment of 1,012,598 foot-tons, pumps 2,068.7 long tons of ballast overboard. The VCG of the discharged ballast is 15.0 feet. What is the new height of the center of gravity?   | 50.62 feet                                 | 55.89 feet                 | 60.56 feet               | 61.16 feet                             |  |
| 4 | 8155 | C | The moment created by a force of 12,000 tons and a moment arm of 0.25 foot is _____.   | 48,000 ft-tons                             | 6,000 ft-tons              | 3,000 ft-tons            | 0 ft-tons                              |  |
| 4 | 8156 | C | Category 1 EPIRBs are required to be carried on board _____.   | small passenger vessels on the Great Lakes | all deep draft vessels     | fishing industry vessels | small passenger vessels                |  |
| 4 | 8157 | D | A moment of 300 ft-tons is created by a force of 15,000 tons. What is the moment arm?  | 50.00 feet                                 | 25.00 feet                 | 0.04 foot                | 0.02 foot                              |  |

|   |      |   |   |                                |  |  |  |
|---|------|---|---|--------------------------------|--|--|--|
| 4 | 8161 | B | A semisubmersible, displacing 20,500 long tons, has vertical moments of 1,060,000 foot-long tons. What is the change in KG if 500 long tons are discharged from a VCG of 120 feet?  | 1.22 feet downward             | 1.71 feet downward                         | 1.75 feet downward                           | 2.93 feet downward                           |
| 4 | 8163 | D | The ship's drawings for use when the DEEP DRILLER is damaged are available in the _____.  | wheelhouse under glass         | toolpusher's quarters                      | OIM's office                                 | ballast control room                         |
| 4 | 8165 | A | The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank 1S. Your best countermeasure is to _____.  | pump from 2S                   | pump from C1S                              | pump from 1S                                 | counterflood in 10P                          |
| 4 | 8167 | C | The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank 10S. Your best countermeasure is to _____.   | pump from 10S                  | pump from C3S                              | pump from 9S                                 | counterflood in 1P                           |
| 4 | 8171 | A | The DEEP DRILLER, loaded as shown in Sample Load Form #2 (Ballast to Survival), suffers major damage which results in flooding in tank C3S. Pumping from tanks in the vicinity of the damage have proven ineffective. Your best countermeasure is to _____. | counterflood in 1P             | counterflood in 10S                        | pump from C1P                                | pump from C3S                                |
| 4 | 8173 | A | When elevating the COASTAL DRILLER in 100 feet of water, the unit should be placed at an air gap of _____.  | 35 feet                        | 32 feet                                    | 30 feet                                      | 25 feet                                      |
| 4 | 8175 | B | When elevating the COASTAL DRILLER in 150 feet of water, the unit should be placed at an air gap of _____.  | 35 feet                        | 32 feet                                    | 30 feet                                      | 25 feet                                      |
| 4 | 8177 | C | When elevating the COASTAL DRILLER in 200 feet of water, the unit should be placed at an air gap of _____.  | 35 feet                        | 32 feet                                    | 30 feet                                      | 25 feet                                      |
| 4 | 8181 | B | When the COASTAL DRILLER is afloat, the water for the saltwater eductor system is provided by _____.  | raw water tower pumps          | fire pumps                                 | bilge pumps                                  | mud pumps                                    |
| 4 | 8183 | D | When extracting the legs from the soil, the hull of the COASTAL DRILLER may be pulled down until the draft is _____.  | at the maximum load line draft | one foot less than maximum load line draft | one foot deeper than maximum load line draft | one foot deeper than calculated afloat draft |

|   |      |   |  |                                       |  |                                   |                     |  |
|---|------|---|--|---------------------------------------|--|-----------------------------------|---------------------|--|
| 4 | 8184 | A | What is an advantage of diesel over steam turbine propulsion?  | Less fuel consumption per SHP         | Diesel fuel costs less than bunker C or its equivalent | Less routine maintenance required | Less weight per SHP |  |
| 4 | 8185 | A | When the COASTAL DRILLER is elevated, the water for the saltwater eductor system is provided by _____.   | raw water tower pumps                 | fire pumps   | bilge pumps                       | mud pumps           |  |
| 4 | 8186 | D | Your drafts are: FWD 16'-02", AFT 20'-08". Use the blue pages of the Stability Data Reference Book to determine the MT1.   | 920 foot-tons                         | 935 foot-tons  | 960 foot-tons                     | 980 foot-tons       |  |
| 4 | 8187 | A | The maximum variable load for the COASTAL DRILLER while elevated in a severe storm is _____.   | 2,381 kips                            | 3,381 kips   | 7,099 kips                        | 21,297 kips         |  |
| 4 | 8191 | C | During a severe storm while the COASTAL DRILLER is elevated, on board loads must be shifted so that the TCG is on the centerline and the LCG is _____.   | 40.00 feet AF0                        | 68.33 feet AF0   | 119.44 feet AF0                   | 160.33 feet AF0     |  |
| 4 | 8193 | D | In a severe storm while elevated, the drilling loads on the COASTAL DRILLER must be considered as _____.   | hook loads                            | setback loads  | rotary loads                      | variable loads      |  |
| 4 | 8195 | D | The COASTAL DRILLER, while in transit, expects the winds to increase to 75 knots. In order to meet the stability and leg strength requirements, the tip-of-can (TOC) position should be at _____.  | 0.00 feet (flush with bottom of hull) | 1.20 feet  | 12.38 feet                        | 60.50 feet          |  |
| 4 | 8197 | C | If a severe storm threatens the COASTAL DRILLER while elevated as shown in the Sample Load Form #3 (Drilling), the variable loads would have to be reduced by _____.   | 3,282.5 kips                          | 2,381.0 kips   | 1,000.0 kips                      | 901.5 kips          |  |
| 4 | 8198 | C | On a vessel of 6500 tons displacement, a tank 30 ft. long, 32 ft. wide and 15 ft. deep is half filled with oil cargo (S.G. 0.948) while the vessel is floating in saltwater (S.G. 1.026). What is the free surface constant for this tank?                                       | 3240                                  | 2731   | 2162                              | 1336                |  |
| 4 | 8201 | D | While on an ocean tow, the COASTAL DRILLER is threatened with the approach of a severe storm. Including the time required to place the generators on-line, the approximate time required to lower the legs from a TOC (tip-of-can) position of 12.38 feet to 60.5 feet is _____. | 8 minutes                             | 32 minutes   | 40 minutes                        | 47 minutes          |  |

|   |      |   |  |  |   |                                    |  |
|---|------|---|--|--|---|------------------------------------|--|
| 4 | 8203 | D | While on a normal tow, the COASTAL DRILLER is threatened with the approach of a severe storm. Including the time required to place the generators on-line, the approximate time required to lower the legs from a TOC (tip-of-can) position of 1.20 feet to 60.50 feet is _____. | 8 minutes  | 32 minutes                                    | 47 minutes                         | 55 minutes                                 |
| 4 | 8205 | B | While on an ocean tow, the COASTAL DRILLER is threatened with the approach of a severe storm. The legs should be lowered so that the TOC (tip-of-can) is lowered from 12.38 feet to _____.   | 48.12 feet                                       | 60.50 feet                                    | 68.50 feet                         | 78.50 feet                                 |
| 4 | 8207 | D | While on a normal tow, the COASTAL DRILLER is threatened with the approach of a severe storm. The legs should be lowered so that the TOC (tip-of-can) is lowered from 1.20 feet to _____.  | 2.20 feet  | 12.38 feet                                    | 48.12 feet                         | 60.50 feet                                 |
| 4 | 8211 | B | When preloading the COASTAL DRILLER, the minimum total weight shall not be less than _____.  | 21,497 kips                                      | 21,297 kips                                   | 17,700 kips                        | 14,400 kips                                |
| 4 | 8213 | B | What fitting should you install in the rig piping to a pump to facilitate disconnecting the pump for servicing?  | Coupling   | Union   | Flange                             | Nipple                                     |
| 4 | 8215 | C | In the piping systems of a MODU, what type of valve gives the least resistance to fluid flow when fully open?  | Globe valve                                      | Butterfly valve                               | Gate valve                         | Packless valve                             |
| 4 | 8217 | B | What is the purpose of a striker plate?  | Provides surface for applying force on machinery | Provides landing surface for the sounding bob | Absorbs machinery vibration        | Prevents valve stem over-travel            |
| 4 | 8221 | D | What is the purpose of a vent header?  | Prevents entry of water into vent systems        | Prevents passage of flame into fuel tanks     | Catches overflow                   | Combines individual vent lines into a main |
| 4 | 8222 | B | Which will improve stability?  | Closing watertight doors                         | Pumping the bilges                            | Loading cargo on deck              | Consuming fuel from a full tank            |
| 4 | 8223 | C | What is the purpose of a check valve?  | Passes air but not liquid                        | Regulates liquid flow                         | Permits flow in one direction only | Passes liquid but not air                  |
| 4 | 8225 | A | On what type of pump would you find an impeller?   | Centrifugal                                      | Gear  | Piston                             | Vane                                       |
| 4 | 8235 | C | What is the proper direction of flow through a globe valve when the valve is installed to be in a normally open position?  | Direction is unimportant                         | Depends on seat configuration                 | From below the seat                | From above the seat                        |

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| 4 | 8257 | C | When taking soundings on a floating MODU, the tape should be lowered and brought back quickly to _____.   | reduce the time the sounding tube is open            | avoid creating a spark                              | lessen the effect of roll or pitch on the reading     | lessen the effect of heave on the reading          |  |
| 4 | 8261 | A | When taking soundings on a MODU, coating the tape with chalk helps to _____.  | better identify the correct reading                  | show the depth of any water in an oil tank          | make the tape roll easier                             | reduce possibility of sparks                       |  |
| 4 | 8263 | B | When removing the cap from a sounding tube on a MODU, the sound of air escaping indicates the tank _____.   | is full  | may be partially flooded                            | level has dropped                                     | is completely flooded                              |  |
| 4 | 8275 | B | In a wire rope mooring system, the fairlead sheave should be a minimum of _____.  | 10-18 times the diameter of the wire rope            | 18-36 times the diameter of the wire rope           | 36-50 times the diameter of the wire rope             | 50-75 times the diameter of the wire rope          |  |
| 4 | 8277 | D | An effective braking system for windlasses on rigs in deep water is a(n) _____.   | larger chain stopper                                 | disc backstopping brake                             | hydraulic clutch                                      | electrical regenerative braking system             |  |
| 4 | 8281 | B | In storm conditions, when the DEEP DRILLER is in 600 feet water depth, and the high-line tension (HLT) is 350 kips, completely slacking the two leeward mooring line tensions reduces the HLT to _____. | 375 kips   | 275 kips  | 245 kips  | 220 kips   |  |
| 4 | 8283 | A | When the alarm bell sounds on a positive-pressure, self-contained breathing apparatus, how long will reserve air supply last?   | About 4-5 minutes                                    | About 8-10 minutes                                  | About 12-15 minutes                                   | About 18-20 minutes                                |  |
| 4 | 8285 | C | The bypass valve on a self-contained breathing device should be opened if _____.  | you are entering a space containing poisonous vapors | you are entering a space containing explosive gases | the regulator of the breathing apparatus malfunctions | the facepiece of the breathing device is too tight |  |
| 4 | 8287 | A | Automatic mechanical ventilation shutdown is required for CO2 systems protecting the _____.   | machinery spaces                                     | cargo compartments                                  | living quarters                                       | galley   |  |
| 4 | 8288 | D | What is NOT used as a stern tube bearing, on a large vessel?  | Wooden (lignum vitae) strips                         | Hard rubber   | Resin bonded composition                              | Bronze bushings                                    |  |
| 4 | 8293 | D | Failure of both port-side ballast pumps on the DEEP DRILLER prevents their use. To dewater from the port forward tanks, you should use the _____.   | port saltwater service pump                          | port drill water pump                               | port bilge pumps                                      | starboard ballast pump and crossover system        |  |
| 4 | 8295 | A | The DEEP DRILLER suffers minor flooding of the port pump room. If both port bilge pumps fail to dewater the pump room, you should use the _____.  | port drill water pump                                | port saltwater service pump                         | port ballast pumps                                    | starboard ballast pumps and crossover system       |  |

|   |      |   |   |  |                                  |  |  |  |
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| 4 | 8297 | A | The DEEP DRILLER suffers minor flooding of the starboard pump room. If both starboard bilge pumps fail to dewater the pump room, you should use the _____.                                    | starboard drill water pump                   | starboard saltwater service pump | starboard ballast pumps                    | port ballast pumps and crossover system              |  |
| 4 | 8303 | C | On a MODU, if there is a probability of encountering H2S during the drilling of a well, air movers (bug blowers) should be installed to dilute concentration of H2S at the _____.             | pipe rack                                    | crown block                      | shale shaker                               | All of the above                                     |  |
| 4 | 8305 | B | Since accumulations of H2S gas on a MODU can be dangerous to personnel, it is important to know that H2S gas is _____.  | lighter than air                             | heavier than air                 | a yellow gas that is easily recognized     | mildly toxic   |  |
| 4 | 8307 | C | The sense of smell cannot be depended upon to detect H2S because _____.   | it has a smell similar to petroleum products | hydrogen sulfide gas is odorless | the sense of smell is deadened by the gas  | it is better to rely on eye irritation as a detector |  |
| 4 | 8311 | B | High concentrations of H2S gas are most dangerous to personnel because they can _____.  | cause involuntary muscle contractions        | paralyze your breathing system   | cause eye inflammation                     | cause dizziness                                      |  |
| 4 | 8313 | C | The worst atmospheric condition for dispersion of H2S is _____.   | heavy rain                                   | gusty winds with rain            | nearly calm, clear nights or early morning | full sun with high winds                             |  |
| 4 | 8315 | C | The airborne concentrations of substances (such as H2S) under which nearly all workers may be repeatedly exposed without adverse effects are called _____.                                    | exposure limits                              | concentration limits             | threshold limit values                     | substance limit values                               |  |
| 4 | 8317 | D | The minimum concentration of H2S which can cause death if a person is exposed for even an instant is _____.   | 200 ppm                                      | 400 ppm                          | 600 ppm                                    | 1000 ppm   |  |
| 4 | 8321 | B | The maximum concentration of H2S to which workers may be regularly exposed without adverse effects is _____.  | 10 ppm                                       | 20 ppm                           | 40 ppm                                     | 80 ppm   |  |
| 4 | 8323 | D | The Lethal Concentration of H2S that will cause death with short-term exposure is a minimum of _____.   | 100 ppm                                      | 200 ppm                          | 400 ppm                                    | 700 ppm  |  |
| 4 | 8325 | A | If H2S exposure is anticipated, fixed monitoring devices aboard a MODU should have a low level concentration alarm to alert personnel when H2S concentrations first reach a maximum of _____. | 10 PPM                                       | 20 PPM                           | 30 PPM                                     | 40 PPM   |  |

|   |      |   |  |   |   |  |  |  |
|---|------|---|--|---|---|--|--|--|
| 4 | 8327 | B | When H2S has been encountered on a MODU, or is anticipated, monitoring devices must sound an alarm (which differs from the lower concentration alarm) or otherwise warn employees when concentration of H2S reaches or exceeds how many parts per million? | 20  | 50  | 100  | 200  |  |
| 4 | 8331 | C | When H2S is burned (flared) on a MODU, what can you expect to occur?   | All of the H2S will be converted to SO2.    | All of the H2S will be converted to hydrogen and free sulfur. | Only 80% of the H2S will be converted to SO2 or free sulfur. | The H2S not converted will not be dangerous. |  |
| 4 | 8332 | A | What type of stern tube bearing has the least friction?  | Oil-lubricated bearings                     | Lignum vitae  | Hard rubber  | Bronze bushings                              |  |
| 4 | 8333 | B | Individuals who have consumed alcohol within 24 hours of exposure to H2S can tolerate _____.   | unusually large concentrations of H2S       | smaller than normal concentrations of H2S                     | moderate concentrations of H2S without the usual reactions   | longer exposure to H2S concentrations        |  |
| 4 | 8335 | C | Requirements for H2S preparation and equipment usage aboard MODU's in U.S. offshore waters are administered by the _____.  | U.S. Coast Guard                            | U.S. Corps of Engineers                                       | Minerals Management Service                                  | American National Standards Institute        |  |
| 4 | 8337 | D | What is the percentage of oxygen in a typical sample of uncontaminated air?  | 12 percent                                  | 15 percent  | 18 percent   | 21 percent                                   |  |
| 4 | 8341 | C | Clean air standards referred to as "Grade D" apply to compressed air for use in _____.   | high pressure fluid accumulators            | driving air-powered plunger pumps                             | filling open-circuit breathing systems                       | bladder-type accumulators                    |  |
| 4 | 8342 | B | Blocking open or removing fire dampers can cause _____.  | the accumulation of explosive gases         | the fire to spread through the ventilation system             | faster cooling of the fire                                   | fixed foam systems to be ineffective         |  |
| 4 | 8343 | B | The probability of sulfide stress cracking in the presence of hydrogen sulfide is greatest for _____.  | low strength steel                          | high strength steel   | rubber sealing elements                                      | aluminum                                     |  |
| 4 | 8345 | D | For H2S detection, sensitized tapes indicate H2S presence by means of discoloration of an exposed spot on the tape. The shade of the color on the spot depends upon the concentration of H2S and _____.  | air temperature at the time of the exposure | air pressure at the time of the exposure                      | humidity at the time of exposure                             | duration of the exposure                     |  |
| 4 | 8347 | B | All diesel engines are classified as _____.  | four cycle                                  | compression ignition  | vacuum ignition  | external combustion                          |  |
| 4 | 8351 | D | What is a pinion in a jacking system?  | Flexible coupling                           | Flexible shaft  | Flexible joint   | Gearwheel                                    |  |
| 4 | 8353 | C | What power source actuates a solenoid valve?   | Air pressure                                | Hydraulic pressure  | Electric current   | Mechanical force                             |  |



|   |      |   |  |                                 |  |   |                                  |  |
|---|------|---|--|---------------------------------|--|---|----------------------------------|--|
| 4 | 8355 | A | What quality of a diesel fuel is most significant for efficient combustion?  | Volatility                      | Viscosity                                  | Flash point                                 | Specific heat                    |  |
| 4 | 8357 | A | What is the principle behind dynamic braking as used on an anchor windlass?  | Electrical loading              | Mechanical distribution                    | Compressibility of air                      | Mechanical friction              |  |
| 4 | 8361 | D | What is the effect of heated intake air on a diesel engine?  | Increases efficiency            | Increases engine horsepower                | Increases engine life                       | Reduces engine horsepower        |  |
| 4 | 8363 | C | Lubricating oil should be changed on a heavy duty diesel engine when _____.  | it gets dark in color           | a sample rubbed between fingers feels thin | it has been in use for a specified interval | it no longer supports combustion |  |
| 4 | 8367 | D | How would the exhaust of a properly operating diesel engine appear?  | Light blue haze                 | Light brown haze                           | Light gray haze                             | Perfectly clear                  |  |
| 4 | 8371 | A | Each cylinder in a two stroke cycle engine experiences combustion _____.   | once each crankshaft revolution | twice each crankshaft revolution           | every other crankshaft revolution           | every fourth stroke              |  |
| 4 | 8373 | B | How does combustion air enter the cylinder of a two-cycle diesel engine?   | Cylinder head valves            | Ports                                      | Turbo chargers                              | Bleeder valves                   |  |
| 4 | 8375 | D | Maintaining good working order of fuel pumps and injectors in auxiliary diesel engines requires the use of _____.  | fuel/water separators           | day tanks                                  | an injector test stand                      | fuel filters                     |  |
| 4 | 8377 | C | What factor is essential to the proper operation of a radiator cooled engine?  | Cooling water pressure          | Jacket water treatment                     | Air flow through the radiator               | Low heat of combustion           |  |
| 4 | 8381 | B | What are the three basic types of engine starters?   | Air, water, electric            | Air, hydraulic, electric                   | Metered, hydraulic, automatic               | Air, emergency, hydraulic        |  |
| 4 | 8383 | C | What does a pyrometer measure on a diesel engine?  | Water temperature               | Water pressure                             | Exhaust temperature                         | Air box pressure                 |  |
| 4 | 8384 | D | A moment of 300 ft-tons is created by a force of 15,000 tons. What is the moment arm?  | 50.00 feet                      | 25.00 feet                                 | 0.04 foot                                   | 0.02 foot                        |  |
| 4 | 8385 | C | What condition will result in the automatic shutdown of a diesel engine?   | High jacket water pressure      | High lube oil pressure                     | Low lube oil pressure                       | Excessive turbo charger speed    |  |
| 4 | 8387 | B | On a MODU, the possibility of a blowout makes which type of diesel engine shutdown desirable?  | Overspeed trip                  | Air inlet shut-off valve                   | Water injector                              | Fuel cutoff valve                |  |
| 4 | 8391 | D | What monitoring device best indicates the load being carried by a diesel engine?   | Lube oil pressure gauge         | Jacket water temperature gauge             | Tachometer                                  | Exhaust pyrometer                |  |
| 4 | 8392 | C | You are preparing for what promises to be a rough ocean passage. Your 120-foot schooner carries a yard on the foremast about 50 feet above the water. The yard weighs about 1000 pounds. If you take the yard down and stow it on deck for the trip, you will _____. | decrease the GM                 | give the vessel a gentler roll             | increase the metacentric height             | decrease the reserve buoyancy    |  |
| 4 | 8393 | C | Diesel engines obtain combustion air through turbo chargers, blowers, or _____.  | air starters                    | carburetors                                | natural aspiration                          | air receivers                    |  |

|   |      |   |   |  |   |  |  |  |
|---|------|---|---|--|---|--|--|--|
| 4 | 8395 | A | What is the purpose of the intake/exhaust valves in a diesel engine?  | They regulate the combustion cycle.                                | They supply cooling water.                              | They synchronize the ignition spark.   | They supply and regulate the lubricant flow.   |  |
| 4 | 8397 | C | What is the best indication of the loading of a diesel engine?  | Oil temperature  | Manifold pressure                                       | Exhaust gas temperature  | Fuel consumption   |  |
| 4 | 8403 | C | What is the most probable cause of reduced capacity in a reciprocating air compressor?                                      | Carbon on cylinder heads   | Faulty unloader   | Leaking air valves   | Plugged air cooler   |  |
| 4 | 8405 | A | The most serious effect of oxygen retained in a diesel engine jacket water cooling system is that it _____.                 | causes corrosion   | reduces the effectiveness of the coolant                | can form air pockets which exclude coolant contact with hot surfaces                           | accelerates formation of hydrogen peroxide deposits  |  |
| 4 | 8407 | A | If you are unable to stop a diesel engine by any other means, you should _____.   | discharge a CO2 extinguisher in the air inlet                      | pull off the distributor cap                            | secure the jacket water  | secure the starting air supply valve   |  |
| 4 | 8411 | A | What is one effect of running a diesel engine at too cool a temperature?  | Buildup of sludge in the lubricating system                        | Excessive fuel consumption                              | Severe heat stresses on mechanical parts   | Foaming of the lubricating oil   |  |
| 4 | 8412 | D | When abandoning ship and jumping into the water from a substantial height, you should _____.                                | dive head first using your hands to break the surface of the water | hold your arms firmly at your sides and jump feet first | throw your life jacket into the water first and then jump feet first into the water next to it | jump feet first, holding onto your life jacket with one hand while covering your nose and mouth with the other |  |
| 4 | 8415 | C | The three conditions which cause engine shutdown are overspeed, low lube oil pressure, and _____.                           | high lube oil pressure   | high jacket water pressure                              | high jacket water temperature  | low jacket water pressure  |  |
| 4 | 8417 | D | Sudden unloading of a diesel engine can cause _____.  | decreased fuel efficiency  | increased exhaust temperature                           | black smoke  | overspeed trip   |  |
| 4 | 8421 | B | If an engine shuts down due to high jacket water temperature, what action should be taken?                                  | Open crankcase explosion covers                                    | Allow engine to cool gradually                          | Slowly add cool water to the expansion tank  | Back flush the cooling water system  |  |
| 4 | 8431 | B | The International Oil Pollution Prevention (IOPP) Certificate required by MARPOL is issued to U.S. flag MODUs by the _____. | International Maritime Organization                                | U.S. Coast Guard  | American Bureau of Shipping  | Environmental Protection Agency  |  |
| 4 | 8433 | D | The International Oil Pollution Prevention Certificate on a MODU is valid for a period of _____.                            | one year from the date of issue                                    | two years from the date of issue                        | three years from the date of issue   | four years from the date of issue  |  |
| 4 | 8435 | A | A MODU which is required to carry an Oil Record Book must log in the book _____.  | discharge of ballast or cleaning water from fuel tanks             | sounding levels of all fuel tanks on a daily basis      | the grade and specific gravity of all fuel oil carried   | fuel consumption rates on a weekly basis   |  |

|   |      |   |  |  |  |   |   |  |
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| 4 | 8437 | C | A MODU required to carry an Oil Record Book must maintain the book on board for _____.   | one year   | two years  | three years   | four years  |  |
| 4 | 8440 | A | Addition of weight above the center of gravity of a vessel will ALWAYS _____.  | reduce initial stability                                       | increase righting moments  | increase GM   | All of the above  |  |
| 4 | 8441 | D | The regulations regarding Oil Record Books do not apply to MODU's that _____.  | are on an international voyage                                 | are on a voyage of more than 24 hours                                | have a valid International Oil Pollution Prevention Certificate             | have a valid National Pollutant Discharge Elimination System permit             |  |
| 4 | 8443 | A | The requirement to carry an Oil Record Book does not apply to a MODU that _____.   | is not equipped to discharge overboard any oil or oily mixture | is on an international voyage to a country that is a party to MARPOL | has an International Oil Pollution Prevention Certificate                   | has an oily water separator of sufficient capacity for the oil wastes generated |  |
| 4 | 8445 | C | Under the regulations implementing MARPOL, a mobile offshore drilling unit is required to have an International Oil Pollution Prevention (IOPP) Certificate when the unit _____. | is drilling on the Outer Continental Shelf                     | moves to a new drilling location in U.S. waters                      | engages in a voyage to a port of another country which is a party of MARPOL | All of the above  |  |
| 4 | 8447 | B | Where is thicker plating usually found in the construction of integral tanks on a MODU?  | On the outside of the tank                                     | At the bottom of the tank  | At the top of the tank  | At the center of the tank   |  |
| 4 | 8477 | C | You are on a semisubmersible being towed and are concerned that a fishing vessel is not taking sufficient action to avoid you. To signal your concern, you should _____.         | fire a red flare at 15 second intervals                        | fire a green flare at 15 second intervals                            | sound five or more short blasts on the whistle                              | broadcast a Mayday message on the radiotelephone                                |  |
| 4 | 8481 | C | A jack-up 180 feet in length with the LCF at 120 feet AFO has a true mean draft (draft at LCF) of 10 feet. If the trim is 3 feet by the stern, what is the draft at the stern?   | 8.0 feet   | 9.0 feet   | 11.0 feet   | 12.0 feet   |  |
| 4 | 8483 | C | A jack-up 180 feet in length with the LCF at 120 feet AFO has a true mean draft (draft at LCF) of 10 feet. If the trim is 3 feet by the stern, what is the draft at the stern?   | 8.0 feet   | 9.0 feet   | 11.0 feet   | 12.0 feet   |  |
| 4 | 8485 | A | The DEEP DRILLER, at a draft of 60 feet, has a KGL of 55.4 feet and an LCG of 2.43 feet. What is the trim angle?   | 2° by the head   | 2° by the stern  | 4° by the head  | 4° by the stern   |  |
| 4 | 8487 | B | The DEEP DRILLER, at a draft of 19 feet, has a KGL of 59.91 feet and an LCG of 1.57 feet. What is the trim angle?  | 0.2° by the stern  | 0.3° by the stern  | 0.4° by the stern   | 0.5° by the stern   |  |

|   |      |   |  |                     |                     |                  |                   |  |
|---|------|---|--|---------------------|---------------------|------------------|-------------------|--|
| 4 | 8491 | B | The DEEP DRILLER, at a draft of 50 feet, has a KGT of 52.12 feet and TCG of 0.5 foot to port of the longitudinal centerline. What is the list in feet?   | 2.7 feet to port    | 5.4 feet to port    | 5.7 feet to port | 10.8 feet to port |  |
| 4 | 8493 | D | What is the value of KML for the DEEP DRILLER at a draft of 60 feet?   | 59.63 feet          | 60.16 feet          | 61.68 feet       | 61.13 feet        |  |
| 4 | 8505 | C | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the improvement in KGL? | 0.67 foot           | 0.98 foot           | 1.15 feet        | 2.06 feet         |  |
| 4 | 8511 | C | An elevated jack-up weighs 17,000 kips. Its center of gravity is located 110 feet aft of frame zero (AF0). What would be the new LCG if the cantilever (weight 900 kips) and drill floor (weight 800 kips) were skidded 70 feet aft?                                   | 103.0 feet AF0      | 113.4 feet AF0      | 117.0 feet AF0   | 180.0 feet AF0    |  |
| 4 | 8513 | C | An elevated jack-up weighs 14,000 kips. Its TCG is located 1.0 foot to port of the centerline. What would be the new TCG for the jack-up if the drill floor, weighing 700 kips, is skidded 10 feet to starboard?   | 9.00 feet starboard | 0.50 foot starboard | 0.50 foot port   | 1.0 foot port     |  |
| 4 | 8515 | C | While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips, LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The starboard leg reaction is _____.   | 4,536 kips          | 4,698 kips          | 4,725 kips       | 4,890 kips        |  |
| 4 | 8517 | D | While preparing for a storm when elevated, the total weight of the COASTAL DRILLER is 14,150 kips. LM are 1,712,150 ft-kips, and TM are -9,905 ft-kips. The port leg reaction is _____.  | 4,536 kips          | 4,716 kips          | 4,824 kips       | 4,890 kips        |  |
| 4 | 8521 | A | The COASTAL DRILLER, while drilling, has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the bow leg reaction?   | 4,060 kips          | 5,145 kips          | 5,559 kips       | 5,816 kips        |  |
| 4 | 8523 | C | The COASTAL DRILLER, while drilling has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the starboard leg reaction?  | 4,060 kips          | 5,145 kips          | 5,559 kips       | 5,816 kips        |  |

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| 4 | 8527 | D | The COASTAL DRILLER, while drilling, has a total weight of 15,435 kips. The LM are 1,975,680 ft-kips and the TM are -15,435 ft-kips. What is the port leg reaction?  | 4,060 kips                                   | 5,145 kips                            | 5,559 kips   | 5,816 kips                             |
| 4 | 8533 | C | If you observe any situation which presents a safety or pollution hazard during fuel transfer operations on a MODU, what action should you take FIRST?   | Wait for the person in charge to act.        | Notify the ballast control operator.  | Shut down the transfer operation.                      | Sound the fire alarm.                  |
| 4 | 8535 | A | You are transferring fuel from a supply vessel to your MODU. If you close off one tank in the line of tanks being filled, the rate of flow to other open tanks on the same line will _____.  | increase                                     | decrease                              | stop   | stabilize                              |
| 4 | 8537 | C | The full period of motion of the DEEP DRILLER while in transit is 7 seconds and the maximum pitch angle as seen on the inclinometers is 7°. From the standpoint of critical motion, the motion is _____.   | satisfactory, keep the unit at transit draft | satisfactory, put the unit in standby | unsatisfactory, ballast to survival draft              | unsatisfactory, place unit in standby  |
| 4 | 8541 | A | The process of waiting a period of time before pretensioning an anchor is known as _____.  | soaking                                      | settling                              | sinking  | bedding in                             |
| 4 | 8543 | B | It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the bow, the environmental force due to the wind would be _____. | 595 kips                                     | 475 kips                              | 425 kips   | 300 kips                               |
| 4 | 8545 | B | It is proposed to moor the DEEP DRILLER in 600 feet of water in a region in which the effective wind velocity could reach 80 knots, significant wave height could reach 30 feet, and the current could be 1.5 knots. If these conditions occurred at the same time from the bow, the total environmental force would be _____.           | 620 kips                                     | 595 kips                              | 475 kips   | 425 kips                               |
| 4 | 8547 | C | What does the term "head" mean when applied to a pump?   | Length of its discharge pipe                 | Height of its discharge pipe          | Difference between the discharge and suction pressures | Sum of discharge and suction pressures |
| 4 | 8551 | B | On offshore drilling units, each fire station is required to be fitted with at least one spanner and at least one _____.   | fire axe                                     | hose rack                             | sandbag  | scupper                                |

|   |      |   |  |   |  |   |   |  |
|---|------|---|--|---|--|---|---|--|
| 4 | 8553 | A | On offshore drilling units, each fire station is required to be fitted with a hose which has a nominal diameter of _____.  | 1-1/2 or 2-1/2 inches   | 2 or 3 inches  | 2-1/2 or 3-1/2 inches   | 3 or 4 inches   |  |
| 4 | 8555 | B | The discharge side of every fire pump must be equipped with a _____.   | gate valve  | pressure gauge   | check valve   | strainer  |  |
| 4 | 8557 | A | Each fire pump on a MODU must have a pressure gauge located at _____.  | the pump discharge  | the manifold connection  | each fire station discharge                                     | the pump station  |  |
| 4 | 8561 | B | On a MODU, a fire pump may be used for other purposes if _____.  | the other services are run off a reducing station with a pressure gage                    | a separate fire pump is available for use on the fire main                             | all other services are operated by a manifold near the pump     | All of the above  |  |
| 4 | 8563 | C | How often must CO2 systems be inspected to confirm cylinders are within 10% of the stamped full weight of the charge?  | quarterly   | semiannually   | annually  | biannually  |  |
| 4 | 8575 | B | If a man falls overboard from a rig under tow, you should FIRST _____.   | notify the tug  | deploy life buoys  | launch a boat   | sound the general alarm   |  |
| 4 | 8576 | B | The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?   | A fusible link will automatically open after a fire is extinguished and reset the damper. | Fusible links must be replaced if a damper is activated.                               | Fusible links are tested by applying a source of heat to them.  | Fusible links must be replaced at every inspection for certification. |  |
| 4 | 8577 | D | The indication of a slipping anchor is a(n) _____.   | decrease in mooring line length   | increase in the opposite amperage  | increase in the opposite line tension                           | decrease in mooring line tension and amperage                         |  |
| 4 | 8581 | B | Survival practice in the mooring system is to slack off the tensions on the leeward side and _____.  | deballast the unit to transit draft   | adjust as evenly as practical the windward tensions                                    | release the anchors on the windward side                        | tighten the anchor buoys on the leeward side anchors                  |  |
| 4 | 8583 | D | After cranes have been installed on offshore drilling units the hooks, hook block, slings, rib and other rigging must be load tested. This test must be performed once each _____. | 12 months   | 24 months  | 36 months   | 48 months   |  |
| 4 | 8584 | C | When transferring survivors from an enclosed lifeboat to a rescue vessel, personnel on board the boat should _____.  | remove their life preservers to make it easier to climb on board the rescue vessel        | climb on top of the boat while waiting for their turn to transfer to the rescue vessel | remain seated inside and make the transfer one person at a time | enter the water and swim over to the rescue vessel                    |  |
| 4 | 8585 | C | A MODU must have on board a first-aid kit that is approved by the _____.   | Minerals Management Service   | Occupational Safety and Health Administration  | Mine Safety and Health Administration                           | American Bureau of Shipping   |  |

|   |      |   |   |  |  |  |  |  |
|---|------|---|---|--|--|--|--|--|
| 4 | 8587 | B | The person assigned to command a lifeboat or inflatable liferaft on a MODU shall have a list of the persons assigned to the lifeboat or liferaft. The list shall include each person's _____.                           | home address   | duties   | home phone number  | nearest relative's address   |  |
| 4 | 8591 | C | Prior to burning or welding on a fuel tank on a MODU, regulations require that an inspection be made. An entry in the unofficial logbook is required if this inspection is made by _____.                               | a marine chemist   | the Officer in Charge, Marine Inspection             | the Master or person in charge of the MODU                                   | the National Fire Protection Association                                 |  |
| 4 | 8593 | D | Who is responsible for insuring that the accommodations on a mobile offshore drilling unit are maintained in a clean and sanitary condition?  | The galley personnel   | The safety man                                       | The relief toolpusher  | The designated person in charge  |  |
| 4 | 8595 | B | When a survival craft drill is held, the person in charge must insure that _____.   | all survival craft are lowered to the water, launched, and operated for thirty minutes | all davits used for launching liferafts are operated | each emergency position indicating radio beacon is tested for thirty minutes | the helicopter pad landing lights are operating in a quick-flashing mode |  |
| 4 | 8597 | C | On offshore drilling units, the EPIRB on board is required to be tested _____.  | daily  | weekly   | monthly  | yearly   |  |
| 4 | 8601 | A | Offshore drilling units must have at least two ring buoys with water lights that, when released from the mounting rack, activate a _____.   | smoke signal   | steam whistle  | battery powered horn   | radio signal   |  |
| 4 | 8603 | B | On offshore drilling units, the lifeboats must be lowered to the water and maneuvered at least once every _____.  | 2 months   | 3 months   | 6 months   | 12 months  |  |
| 4 | 8605 | B | On offshore drilling units, the lifeboat motors shall be operated in the ahead and astern position at least once each _____.  | day  | week   | month  | year   |  |
| 4 | 8615 | B | The LWT anchor has two angular positions for the flukes. These are _____.   | 30° and 40°  | 30° and 50°  | 30° and 60°  | 40° and 60°  |  |
| 4 | 8621 | C | What is the transverse shift in the center of gravity if 200 short tons are placed 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and the displacement is 9,000 short tons? | 0.03 foot  | 0.20 foot  | 0.23 foot  | 0.62 foot  |  |

|   |      |   |   |                                   |  |                                |                                       |  |
|---|------|---|---|-----------------------------------|--|--------------------------------|---------------------------------------|--|
| 4 | 8623 | A | What is the new location of the transverse center of gravity if 200 short tons are placed 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and displacement 9,000 short tons?   | 0.47 foot starboard of centerline | 0.40 foot starboard of centerline        | 0.23 foot port of centerline   | 0.20 foot port of centerline          |  |
| 4 | 8625 | A | What is the new location of the transverse center of gravity if 200 short tons are discharged from 10 feet to port of the centerline on a MODU with TCG 0.7 foot starboard of the centerline, and the displacement is 9,000 short tons?   | 0.94 foot starboard of centerline | 0.90 foot starboard of centerline        | 0.47 foot port of centerline   | 0.23 foot port of centerline          |  |
| 4 | 8627 | B | What is the shift in the longitudinal center of gravity if 200 short tons are discharged from 30 feet forward of amidships on a MODU with LCG 1.5 feet forward of amidships, and displacement 9,000 short tons?   | 0.62 foot aft                     | 0.65 foot aft                            | 0.68 foot aft                  | 0.71 foot aft                         |  |
| 4 | 8631 | B | What is the new location of the longitudinal center of gravity if 200 short tons are discharged from 30 feet forward of amidships on a MODU with LCG 1.5 feet forward of amidships, and displacement 9,000 short tons?  | 0.88 foot forward of amidships    | 0.85 foot forward of amidships           | 0.82 foot forward of amidships | 0.79 foot forward of amidships        |  |
| 4 | 8635 | D | A weight of 1,000 kips is equivalent to _____.  | 1,000 pounds                      | 2,000 short tons                         | 2,240 pounds                   | 500 short tons                        |  |
| 4 | 8637 | D | Which type of hull damage on a floating MODU should be repaired first?  | Damage below the waterline        | Damage to interior watertight boundaries | Damage to/in machinery rooms   | Damage at or just above the waterline |  |
| 4 | 8643 | D | The analysis of damaged stability for the DEEP DRILLER, disregards the beneficial effects of countermeasures and _____.   | horizontal area of the platform   | vertical area of the platform            | wind strength                  | mooring system                        |  |
| 4 | 8645 | C | In the analysis of damaged stability for the DEEP DRILLER, disregarded are the beneficial effects of moorings and _____.  | horizontal area of the platform   | vertical area of the platform            | countermeasures                | wind strength                         |  |
| 4 | 8647 | A | While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. Because the tank sounding level and port forward inclination are rapidly increasing, you decide that tank 1P is damaged. Your best countermeasure is to _____. | deballast from tank 2P            | dump the mud                             | counterflood into 9S           | counterflood into C3S                 |  |



|   |      |   |  |                                     |                            |                            |   |
|---|------|---|--|-------------------------------------|----------------------------|----------------------------|---|
| 4 | 8651 | A | While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. Because the sounding level and port aft inclination are slowly increasing, you decide that tank 10P has minor damage. Among the possible corrective actions is _____.         | deballast from tank 9P              | dump the mud               | counterflood into 2S       | counterflood into 10P                         |
| 4 | 8653 | A | While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the starboard side. Because the sounding level and starboard inclination are rapidly increasing, you decide that tank 1S is damaged. Your best countermeasure is to _____.                   | deballast from tank 2S              | dump the mud               | counterflood into 9P       | place a wooden plug into the vent of tank 2S  |
| 4 | 8655 | D | While the DEEP DRILLER is loaded as shown in Sample Form #4 (Drilling), casing is accidentally dropped on the starboard side. Because the sounding level and starboard aft inclination are slowly increasing, you decide that tank 10S has minor damage. Among the possible corrective actions is _____. | deballast from tank 9P              | dump the mud               | counterflood into 2P       | place a wooden plug into the vent of tank 10S |
| 4 | 8657 | A | While the DEEP DRILLER is operating as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the port side. If the port aft inclination is slowly increasing, which tank is probably damaged?  | 10P                                 | 9P                         | 10S                        | 1P  |
| 4 | 8661 | C | While the DEEP DRILLER is operating as shown in Sample Form #4 (Drilling), casing is accidentally dropped over the starboard side. If the starboard aft inclination is slowly increasing, which tank is probably damaged?  | 9S                                  | 8S                         | 10S                        | 10P   |
| 4 | 8662 | D | When may a work vest be substituted for a required life preserver?   | To replace a damaged life preserver | For use during fire drills | For use during boat drills | At no time                                    |
| 4 | 8663 | A | While the DEEP DRILLER is operating as shown in Sample Load Form #4 (Drilling), casing is accidentally dropped over the starboard side. If the starboard forward inclination is slowly increasing, which tank is probably damaged?   | 1S                                  | 2S                         | 3S                         | 1P  |

|   |      |   |   |                        |                  |                  |                      |  |
|---|------|---|---|------------------------|------------------|------------------|----------------------|--|
| 4 | 8665 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #5 (Survival) loads an additional 137.88 long tons. The resulting trim by the stern is 2 feet and the list to port is 3 feet. What is the draft at the port forward draft mark? | 45 feet 6 inches       | 46 feet 0 inches | 46 feet 6 inches | 47 feet 0 inches     |  |
| 4 | 8671 | D | The plans, for use during emergencies aboard the DEEP DRILLER, are readily available in the _____.  | wheelhouse under glass | pump room        | OIM's office     | ballast control room |  |
| 4 | 8673 | D | The DEEP DRILLER is operating at the maximum allowable KGT at 60 feet draft. What is the value of GMT?  | 0.05 foot              | 1.02 feet        | 2.63 feet        | 4.34 feet            |  |
| 4 | 8675 | B | The DEEP DRILLER, at 60.0 feet draft in sea water, discharges 275.8 long tons. What is the new draft?   | 56 feet                | 58 feet          | 60 feet          | 62 feet              |  |
| 4 | 8681 | C | The DEEP DRILLER, while loaded as shown in the Sample Load Form #5, loads 275.8 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the starboard aft draft mark?                             | 44 feet 6 inches       | 47 feet 0 inches | 47 feet 6 inches | 48 feet 6 inches     |  |
| 4 | 8683 | D | With no environmental forces on the DEEP DRILLER, the average of the forward drafts is 61.0 feet, and the average of the aft drafts is 59.0 feet. KGL is 51.13 feet. What is the value of LCG?  | -0.12 foot             | 0.12 foot        | 2.11 feet        | 2.35 feet            |  |
| 4 | 8685 | C | The DEEP DRILLER, at 58.0 feet draft in sea water, places 275.8 long tons on board. What is the new draft?  | 56 feet                | 58 feet          | 60 feet          | 62 feet              |  |
| 4 | 8687 | B | The DEEP DRILLER, at 58.0 feet draft in sea water, places 200 long tons on board. What is the new draft?  | 56.55 feet             | 59.45 feet       | 60.00 feet       | 75.41 feet           |  |
| 4 | 8688 | D | Life floats must be equipped with _____. (small passenger vessel regulations)   | a sea anchor           | a signal mirror  | an EPIRB         | paddles              |  |
| 4 | 8691 | B | The DEEP DRILLER, at 58.0 feet draft in sea water, discharges 200 long tons. What is the new draft?   | 55.55 feet             | 56.55 feet       | 57.05 feet       | 59.45 feet           |  |
| 4 | 8693 | A | While in transit at a draft of 20.5 feet, the DEEP DRILLER has a KGT of 65.00 feet. What is the GMT?  | 7.55 feet              | 5.42 feet        | 5.30 feet        | 5.10 feet            |  |

|   |      |   |   |                                    |                             |                              |                               |
|---|------|---|---|------------------------------------|-----------------------------|------------------------------|-------------------------------|
| 4 | 8695 | B | The DEEP DRILLER, at 58.0 feet draft in sea water, discharges 200 long tons. What is the new displacement?  | 16,263 long tons                   | 17,642 long tons            | 17,842 long tons             | 18,118 long tons              |
| 4 | 8697 | C | The DEEP DRILLER, at 58.0 feet draft in sea water, loads 200 long tons. What is the new displacement?   | 17,642 long tons                   | 17,842 long tons            | 18,042 long tons             | 18,118 long tons              |
| 4 | 8699 | A | What are the transverse moments for the contents of P-tank #1 of the DEEP DRILLER if the ullage is 2.3 feet?  | 3,049 ft-tons                      | 3,977 ft-tons               | 6,412 ft-tons                | 8,362 ft-tons                 |
| 4 | 8701 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). While the unit is deballasting, starboard valve 19 fails in the closed position. You may deballast from tank 9S by pumping from tank 8S by opening valves 20 and _____.  | 35                                 | 21                          | 18                           | 17                            |
| 4 | 8702 | C | An oil fire is classified as class _____.   | D                                  | C                           | B                            | A                             |
| 4 | 8703 | D | The DEEP DRILLER is loaded as shown in Sample Load Form #5 (Survival). While the unit is deballasting, port valve 5 fails in the closed position. You may deballast from tank 2P by pumping from tank 1P after opening valves 6 and _____.      | 35                                 | 7                           | 4                            | 2                             |
| 4 | 8705 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #5 (Survival). While the unit is deballasting, starboard valve 5 fails in the closed position. You may deballast from tank 2S by pumping from tank 1S after opening valves 6 and _____. | 8                                  | 7                           | 2                            | 1                             |
| 4 | 8707 | A | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). If port valves 24 and 2 are mistakenly opened, the change in inclination will be increasing trim by the _____.   | bow with port list                 | bow                         | stern                        | stern with starboard list     |
| 4 | 8711 | A | Starboard ballast pump #1 on the DEEP DRILLER has failed. If you want to deballast from the forward-starboard column using starboard pump #2, it is necessary to open valves _____.   | 3, 34, 35, 36, 46, and 48          | 4, 34, 35, 36, 46, and 48   | 3, 34, 36, 46, and 48        | 4, 34, 36, 46, and 48         |
| 4 | 8712 | C | Jettisoning weight from topside _____.  | returns the vessel to an even keel | reduces free surface effect | lowers the center of gravity | raises the center of buoyancy |

|   |      |   |   |  |  |   |   |
|---|------|---|---|--|--|---|---|
| 4 | 8713 | A | Port ballast pump #1 on the DEEP DRILLER has failed. If you want to deballast the forward-port column using port ballast pump #2, it is necessary to open valves _____.   | 3, 34, 35, 36, 46, and 48  | 4, 34, 35, 36, 46, and 48                | 3, 34, 36, 46, and 48   | 4, 34, 36, 46, and 48   |
| 4 | 8715 | A | Starboard ballast pump #1 on the DEEP DRILLER has failed. To deballast from tank C2SA using starboard ballast pump #2, it is necessary to open the manual valve and which motor driven valves?  | 15, 34, 35, 36, 46, 48   | 16, 27, 32, 35, 36, 48                   | 15, 33, 43, 48  | 14, 34, 35, 36, 46, 48  |
| 4 | 8716 | A | The midships house of your break bulk ship is constructed with an interior stair tower from the main deck to the bridge. Under what circumstances may the doors from each deck to the stair tower be kept open when underway?                                   | They may be kept open if they can be automatically closed from the bridge. | They are to be kept closed at all times. | They may be kept open if the ventilation or air conditioning system is shut down. | They can be kept open if the Muster List ("Station Bill") has personnel designated to close them in case of fire. |
| 4 | 8717 | B | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the uncorrected height of the center of gravity? | 52.14 feet   | 53.78 feet                               | 55.03 feet  | 58.50 feet  |
| 4 | 8721 | B | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the transverse free surface correction to KG?                                | 0.00 feet  | 1.03 feet                                | 1.69 feet   | 2.22 feet   |
| 4 | 8723 | C | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the LCG?   | 0.00 feet  | 1.69 feet                                | 2.22 feet   | 3.91 feet   |
| 4 | 8727 | C | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is the longitudinal free surface correction to KG?  | 0.00 feet  | 1.03 feet                                | 1.69 feet   | 2.22 feet   |

|   |      |   |   |                                   |                      |                      |                        |  |
|---|------|---|---|-----------------------------------|----------------------|----------------------|------------------------|--|
| 4 | 8731 | A | The DEEP DRILLER, at 60.0 feet draft in sea water, has VM = 974,441 foot-long tons, LM = 40,301 foot-long tons, TM = 3 foot-long tons, FSML = 30,572 foot-long tons, and FSMT = 18,732 foot-long tons. What is TCG?   | 0.00 feet                         | 1.03 feet            | 2.22 feet            | 3.91 feet              |  |
| 4 | 8733 | B | The DEEP DRILLER, loaded as shown in the Sample Load Form #4 (Drilling), discharges a non-liquid load of 275.8 long tons from a position 130 feet above the keel, 40 feet forward of amidships, and 30 feet to port of the centerline. What is the new LCG? | 0.59 foot                         | 1.64 feet            | 2.23 feet            | 2.82 feet              |  |
| 4 | 8734 | A | All personnel should be familiar with the lifeboats _____.  | boarding and operating procedures | maintenance schedule | navigational systems | fuel consumption rates |  |
| 4 | 8735 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). What would be the new sum of FSML for Fresh Water if the entire contents of Drill Water Tank #5P are transferred to Tank #5S?  | 3,645 ft-tons                     | 3,328 ft-tons        | 317 ft-tons          | 0 ft-tons              |  |
| 4 | 8737 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #4 (Drilling). What would be the weight of the mud in pit #4 if the mud weight was changed from 16 to 14 pounds per gallon?   | No change                         | 93.34 long tons      | 121.91 long tons     | 135.13 long tons       |  |
| 4 | 8747 | A | If a severe storm threatens the COASTAL DRILLER while elevated, the setback in the derrick should be lowered and placed in the pipe rack. Its weight should be accounted for as _____.  | variable loads                    | drilling loads       | environmental loads  | fixed weight           |  |
| 4 | 8751 | D | When threatened with a severe storm while operating in 250 feet of water, the COASTAL DRILLER should be placed at an air gap of _____.  | 35 feet                           | 32 feet              | 30 feet              | 25 feet                |  |
| 4 | 8753 | A | The maximum weight for the COASTAL DRILLER in severe storm conditions is _____.   | 14,158 kips                       | 14,400 kips          | 15,158 kips          | 17,280 kips            |  |
| 4 | 8755 | C | While elevated, the COASTAL DRILLER prepares for a severe storm. When the setback is lowered and placed in the pipe racks, it is considered as part of the _____.   | fixed loads                       | basic loads          | variable loads       | storm loads            |  |

|   |      |   |  |   |   |   |   |  |
|---|------|---|--|---|---|---|---|--|
| 4 | 8757 | C | The routes to be used during evacuation of the COASTAL DRILLER are shown in the _____.   | official log                                    | Muster List ("Station Bill")                                  | posted Fire Control/Lifesaving Plan         | control room under glass                          |  |
| 4 | 8761 | C | The full period of motion of the DEEP DRILLER while tripping is 7 seconds and the maximum pitch angle as seen on the inclinometers is 4°. From the standpoint of critical motion, the motion is _____.   | unsatisfactory, place setback in the pipe racks | satisfactory, continue tripping                               | unsatisfactory, deballast to survival draft | satisfactory, but prepare to hang off             |  |
| 4 | 8763 | C | After deploying the anchor, a permanent chain chaser is _____.   | removed from the anchor chain                   | connected to a buoy at the anchor                             | stripped back to the rig and secured        | connected to a buoy halfway down the chain        |  |
| 4 | 8767 | D | In securing deck loads for an ocean tow, drill pipe should be _____.   | galvanized to protect against corrosion         | held in place with heavy materials such as spare pendant wire | limited to no more than five courses high   | provided with bulwarks at both ends of their bays |  |
| 4 | 8771 | C | Hydrogen sulfide in explosive concentrations has been detected on the drill floor. The abandon rig signal has been sounded. To evacuate the rig, the crew should use _____.  | all survival capsules and liferafts             | only the leeward survival capsules and liferafts              | only the windward survival capsules         | only the windward liferafts                       |  |
| 4 | 8773 | A | The muster list shows each rig hand's muster station, his duties during abandonment, basic instructions, and _____.  | all emergency signals                           | instructions for lowering the survival craft                  | the time each weekly drill will be held     | work schedule                                     |  |
| 4 | 8775 | C | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected forward inclination. The wind and waves are light from the starboard bow. Among the possible causes, you should consider _____. | failure of mooring lines 2 and 3                | drilling crew has dumped the mud                              | the drill string has broken                 | ballast tanks equalizing into tank 1P             |  |
| 4 | 8777 | B | On a MODU, an obvious indicator of lost circulation of drilling fluid is _____.  | fluid level in the mud pits increases rapidly   | fluid level in the mud pits decreases rapidly                 | increased cuttings on the shale shaker      | decreased cuttings on the shale shaker            |  |
| 4 | 8781 | B | To determine the number of certificated Lifeboatmen required on a mobile offshore drilling unit, you should check the _____.   | load line certificate                           | Certificate of Inspection                                     | Safety of Life at Sea Certificate           | Operations Manual                                 |  |
| 4 | 8782 | B | Control of fire should be addressed _____.   | immediately after restoring vital services      | immediately   | following control of flooding               | following establishment of fire boundaries        |  |
| 4 | 8783 | A | When using a hand held smoke signal aboard a survival craft, you should activate the signal _____.   | on the downwind side of the craft               | on the upwind side of the craft                               | inside the craft                            | at the stern of the craft                         |  |

|   |      |   |  |   |   |  |  |  |
|---|------|---|--|---|---|--|--|--|
| 4 | 8793 | B | While drilling loaded as shown in Sample Load Form #4 (Drilling), the DEEP DRILLER suffers a sudden unexpected inclination to port and aft. Strong winds and high waves are from the starboard bow. Among the possible causes, you should consider _____.      | failure of mooring lines 1 or 2                         | failure of mooring lines 3 or 4         | leak in ballast tank #9P                           | ballast tanks equalizing into tank 10P |  |
| 4 | 8807 | A | The prohibition against displaying lights which may be confused with required navigation lights applies _____.   | from sunset to sunrise and during restricted visibility | only when other vessels are in the area | only when operating in a traffic separation scheme | only when under tow                    |  |
| 4 | 8817 | C | A jack-up has 8 inches of trim by the stern. Calculations show that the moment required to change trim one inch (MCT1") is 500 foot-kips. To level the unit, how far must a weight of 50 kips be transferred toward the bow?                                   | 10.0 feet   | 62.5 feet                               | 80.0 feet  | 100.0 feet                             |  |
| 4 | 8821 | B | A jack-up is trimmed six inches by the bow. The moment required to change trim one inch (MCT1") is 1200 foot-kips. Transferring 200 kips of drill water from a tank with an LCG of 20 feet to a tank with an LCG of 140 feet results in a final trim of _____. | zero trim (level)                                       | 1 foot 2 inches by the stern            | 1 foot 8 inches by the stern                       | 2 feet 2 inches by the stern           |  |
| 4 | 8823 | B | The draft at the forward draft mark of a jack-up is 11 feet 3 inches while the draft at the aft draft mark is 12 feet 9 inches. The value of trim is _____.  | six inches to the stern                                 | 1 foot 6 inches to the stern            | 3 feet to the stern                                | 24 feet to the stern                   |  |
| 4 | 8825 | B | A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a starboard draft of 11 feet 6 inches. What is the heel?  | 1 foot 6 inches to starboard                            | 3 feet to starboard                     | 3 feet to port                                     | 1 foot 6 inches to port                |  |
| 4 | 8827 | C | A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a port draft of 11 feet. What is the heel?  | 1 foot to starboard                                     | 2 feet to starboard                     | 2 feet to port                                     | 1 foot to port                         |  |
| 4 | 8831 | D | A jack-up, while level in transit at 10 feet draft, experiences a wind gust which results in a port draft of 11 feet. What is the new starboard draft?   | 12 feet   | 11 feet                                 | 10 feet  | 9 feet                                 |  |
| 4 | 8833 | B | A jack-up level at 12.5 feet draft transfers 100 kips of drill water from a tank with a TCG of -30 feet to a starboard tank with a TCG of 70 feet. The resulting starboard draft is 13 feet. The moment required to change list one inch (MCL1") is _____.     | 667 foot-kips   | 833 foot-kips                           | 1,400 foot-kips                                    | 1,667 foot-kips                        |  |

|   |      |   |   |                                |  |                                 |                         |
|---|------|---|---|--------------------------------|--|---------------------------------|-------------------------|
| 4 | 8835 | D | A jack-up with a calculated moment to change list one inch (MCL1") of 1,350 foot-kips intends to transfer drill water from a tank with a TCG of 82 feet to a tank with a TCG of 18 feet. How much weight should be transferred to change the draft on the port side from 11.0 to 11.5 feet? | 67.5 kips                      | 81.0 kips                                | 126.6 kips                      | 253.1 kips              |
| 4 | 8837 | D | A jack-up with a calculated moment to change list one inch (MCL1") of 1,200 foot-kips intends to transfer 100 kips of weight in a transverse direction. How far should the weight be transferred to change the draft on the port side from 11.5 to 11.0 feet?                               | 12 feet                        | 48 feet                                  | 120 feet                        | 144 feet                |
| 4 | 8843 | A | A semisubmersible in transit is at a draft of 19 feet. The depth of the lower hulls is 21 feet. How much bunker fuel at 54.0 lbs/cu ft could be taken on and still provide one foot of freeboard if the TPI is 52.3?  | 627.6 long tons                | 648.0 long tons                          | 843.9 long tons                 | 255.2 long tons         |
| 4 | 8907 | C | When giving first aid, you should understand how to conduct primary and secondary surveys and know _____.   | which medications to prescribe | how to diagnose an illness from symptoms | the limits of your capabilities | how to set broken bones |
| 4 | 8911 | D | If a victim is unconscious, you should first look for evidence of _____.  | high fever                     | head injury                              | broken limbs                    | irregular breathing     |
| 4 | 8913 | D | In a semisubmersible MODU, the columns contain void spaces above the waterline that used principally for _____.   | equipment storage              | machinery                                | elevators                       | reserve buoyancy        |
| 4 | 8917 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #4 (Drilling). While the unit is deballasting, starboard valve 17 fails in the closed position. You may deballast from tank 8S by pumping from tank 9S and opening valves 18 and _____.   | 35                             | 21                                       | 20                              | 17                      |
| 4 | 8923 | C | The DEEP DRILLER is loaded as shown in Sample Load Form #4. While the unit is deballasting, port valve 5 fails in the closed position. You may deballast from tank 2P by pumping from tank 9P by also opening valves 6 and _____.   | 35                             | 21                                       | 20                              | 8                       |



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| 4 | 8925 | B | A vessel behaves as if all of its weight is acting downward through the center of gravity, and all its support is acting upward through the _____.        | keel                        | center of buoyancy                      | tipping center                                  | amidships section                              |  |
| 4 | 8927 | B | On the COASTAL DRILLER, placing the rotary 34 feet aft of the transom and two feet to starboard of the centerline, limits the maximum hook load to _____. | 1000 kips                   | 875 kips                                | 750 kips  | 450 kips                                       |  |
| 4 | 8971 | D | The change in weight (measured in tons) which causes a draft change of one inch is _____.   | MT1 inch                    | ML1 inch                                | MH1 inch  | TPI  |  |
| 4 | 8973 | D | For a floating vessel, the result of subtracting KG from KM is the _____.   | height of the metacenter    | height of the righting arm              | height of the center of buoyancy                | metacentric height                             |  |
| 4 | 8977 | D | The important stability parameter, KG, is defined as the _____.   | metacentric height          | height of the metacenter above the keel | height of the center of buoyancy above the keel | height of the center of gravity above the keel |  |
| 4 | 8981 | A | The important initial stability parameter, GM, is the _____.  | metacentric height          | height of the metacenter above the keel | height of the center of buoyancy above the keel | height of the center of gravity above the keel |  |
| 4 | 8983 | D | The time required to incline from port to starboard and back to port again is called _____.   | initial stability           | range of stability                      | inclining moment                                | rolling period                                 |  |
| 4 | 8985 | D | The time required to incline from bow down to stern down and return to bow down again is called _____.  | rolling period              | amplitude moment                        | inclining moment                                | pitching period                                |  |
| 4 | 8987 | D | The tendency of a vessel to return to its original trim after being inclined by an external force is _____.   | equilibrium                 | buoyancy                                | transverse stability                            | longitudinal stability                         |  |
| 4 | 8991 | D | The enclosed area defined as the intersection of the surface of the water and the hull of a vessel is the _____.  | amidships plane             | longitudinal reference plane            | baseline  | waterplane                                     |  |
| 4 | 8993 | C | The waterplane area is described as the intersection of the surface of the water in which a vessel floats and the _____.                                  | baseline                    | vertical reference plane                | hull  | horizontal reference plane                     |  |
| 4 | 8994 | C | Two types of anchor shackles which are currently available are _____.   | U-Type and posilok shackles | C-Type and wedge shackles               | D-Type and bow shackles                         | wedge and kenter shackles                      |  |
| 4 | 8997 | B | Aboard a vessel, multiplying a load's weight by the distance of the load's center of gravity from the centerline results in the load's _____.             | TCG                         | transverse moment                       | righting moment                                 | transverse free surface moment                 |  |

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| 4 | 9001 | A | The difference between the starboard and port drafts caused by shifting a weight transversely is _____.                        | list   | heel   | trim   | flotation   |  |
| 4 | 9002 | D | On all mobile offshore drilling units, the deckhead of each accommodation space must be located above _____.                   | the operating draft  | the survival draft   | the transit draft                                | the deepest load line                                 |  |
| 4 | 9021 | D | Aboard a vessel, dividing the sum of the longitudinal moments by the total weight yields the vessel's _____.                   | inclining moments  | righting moments   | vertical moments                                 | longitudinal position of the center of gravity        |  |
| 4 | 9067 | C | The TCG of a vessel may be found by dividing the displacement of the vessel into the _____.                                    | transverse center of gravity of the vessel                 | sum of the vertical moments of the vessel                    | sum of the transverse moments of the vessel      | transverse baseline of the vessel                     |  |
| 4 | 9087 | A | No outlet on a fire hydrant may point above the horizontal in order to _____.  | avoid kinking the hose                                     | avoid personal injury during connection                      | make connecting easier                           | prevent spray on electrical equipment                 |  |
| 4 | 9091 | C | The outlet at a fire hydrant may be positioned anywhere from horizontal to pointing _____.                                     | 45° upward   | vertically upward  | vertically downward                              | all of the above                                      |  |
| 4 | 9093 | C | In addition to weighing the cartridge, which other maintenance is required for a cartridge-operated dry chemical extinguisher? | Weigh the powder in the canister.                          | Discharge a small amount to see that it works.               | Check the hose and nozzle for clogs.             | Check the external pressure gage.                     |  |
| 4 | 9097 | A | When must a dry chemical fire extinguisher be recharged?   | After each use   | When the air temperature exceeds 90°F                        | Every 6 months                                   | Every 12 months                                       |  |
| 4 | 9101 | B | Recharging a previously used cartridge-operated dry-chemical extinguisher is accomplished by _____.                            | authorized fire equipment servicing personnel only         | replacing the propellant cartridge and refilling with powder | puncturing the cartridge seal after installation | recharging the cartridge and refilling it with powder |  |
| 4 | 9105 | B | Each ventilation system for an enclosed classified location on a MODU must provide a complete change of air every _____.       | 3 minutes  | 5 minutes  | 7 minutes  | 10 minutes  |  |
| 4 | 9107 | C | The amount of Halon remaining in an extinguisher is determined by _____.   | internal inspection  | checking the gage  | weighing the cylinder                            | checking the tag                                      |  |
| 4 | 9111 | B | Inspection of a Halon extinguisher involves checking the hose, handle, nozzle, and _____.                                      | sight glass  | weighing the extinguisher                                    | service technicians report                       | last date it was charged                              |  |
| 4 | 9113 | D | After using a Halon extinguisher, it should be _____.  | put back in service if more than 50% of the charge remains | repainted  | discarded  | recharged   |  |

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| 4 | 9115 | A | An airplane should NOT send which signal in reply to a surface craft?   | Opening and closing the throttle                         | Rocking the wings                                | Flashing the navigational lights off and on       | Flashing Morse T                                   |  |
| 4 | 9121 | C | The blocking or absence of fire dampers can cause _____.  | the accumulation of explosive gases                      | faster cooling of the fire                       | the fire to spread through the ventilation system | fixed foam systems to be ineffective               |  |
| 4 | 9125 | B | Automatic fire dampers in ventilation systems are operated by a _____.  | remote operated valve                                    | fusible link                                     | CO2 system pressure switch                        | heat or smoke detector                             |  |
| 4 | 9129 | B | Automatic fire dampers in ventilation systems are operated by use of a _____.   | heat or smoke detector                                   | fusible link                                     | remote operated valve                             | CO2 system pressure switch                         |  |
| 4 | 9130 | C | When administering first aid you should avoid _____.  | any conversation with the patient                        | instructing bystanders                           | unnecessary haste and appearance of uncertainty   | touching the patient before washing your hands     |  |
| 4 | 9137 | D | Fighting a fire in the galley poses the additional threat of _____.   | contaminating food with extinguishing agent              | spreading through the engineering space          | loss of stability                                 | a grease fire in the ventilation system            |  |
| 4 | 9153 | C | The two factors which make underwater hull repair of a MODU difficult are accessibility and the _____.                      | availability of tools                                    | shape of the hull                                | pressure exerted by the water                     | threat of progressive flooding                     |  |
| 4 | 9155 | B | In plugging submerged holes on a MODU, rags, wedges, and other materials should be used in conjunction with plugs to _____. | reduce the water pressure on the hull                    | reduce the water leaking around the plugs        | prevent progressive flooding                      | reduce the possibility of stress fractures         |  |
| 4 | 9167 | A | To release the davit cable of a davit launched liferaft, you must _____.  | pull the release lanyard                                 | pull the hydraulic release                       | push the release button                           | pull on the ratchet handle                         |  |
| 4 | 9185 | D | The external flotation bladder of an immersion suit should be inflated _____.   | only after two hours in the water                        | only after four hours in the water               | before entry into the water                       | upon entry into the water                          |  |
| 4 | 9187 | B | The external flotation bladder on an immersion suit should be inflated _____.   | before you enter the water                               | after you enter the water                        | after one hour in the water                       | after you notice that your suit is losing buoyancy |  |
| 4 | 9191 | A | After abandoning a vessel, water that is consumed within the first 24 hours will _____.                                     | pass through the body with little absorbed by the system | help to prevent fatigue                          | quench thirst for only 2 hours                    | help to prevent seasickness                        |  |
| 4 | 9192 | C | The locker or space containing the self-contained breathing apparatus must be _____.  | located in close proximity to the bridge                 | equipped with battery powered emergency lighting | marked "SELF-CONTAINED BREATHING APPARATUS"       | All of the above                                   |  |
| 4 | 9193 | C | Drinking salt water will _____.   | be safe if mixed with fresh water                        | prevent seasickness                              | dehydrate you                                     | protect against heat cramps                        |  |

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| 4 | 9195 | B | When using the rain water collection tubes on a liferaft, the first collection should be _____.   | passed around so all can drink                 | poured overboard because of salt washed off the canopy | saved to be used at a later time | used to boil food                            |  |
| 4 | 9197 | B | In the first 24 hours after abandoning a vessel, water should be given only to personnel who are _____.   | thirsty  | sick or injured  | wet                              | awake  |  |
| 4 | 9205 | D | When you are firing a pyrotechnic distress signal, it should be aimed _____.  | horizontally and directly abeam of your vessel | at the vessel whose attention you want to attract      | into the wind                    | at greater than 60 degrees above the horizon |  |
| 4 | 9217 | C | Apparent wind speed blowing across a MODU under tow can be measured by a(n) _____.  | barometer                                      | wind vane  | anemometer                       | thermometer                                  |  |
| 4 | 9227 | C | The longitudinal free surface correction of a floating MODU displacing 12,000 kips is 1.20 feet. What would be the new FSCL if 2,400 kips of solid variable loads are added?  | 1.50 feet                                      | 1.20 feet  | 1.00 foot                        | 0.83 foot                                    |  |
| 4 | 9231 | B | The transverse free surface correction of a floating MODU displacing 24,000 long tons is 1.0 foot. When the MODU is deballasted by discharging 8,000 long tons of ballast, the FSMT decreases by 4,000 ft-long tons. What is the new FSCT?  | 1.50 feet                                      | 1.25 feet  | 1.00 foot                        | 0.83 foot                                    |  |
| 4 | 9233 | C | A ballast tank in a floating MODU has a maximum FSML of 7,000 ft-long tons. If the tank is converted to drill water storage, what would be the new maximum FSML?  | 7,179 ft-long tons                             | 7,000 ft-long tons                                     | 6,825 ft-long tons               | 2,125 ft-long tons                           |  |
| 4 | 9235 | C | The longitudinal free surface moments of a drilling mud pit aboard a MODU displacing 24,000 long tons in sea water is 1,200 ft-long tons. If the sounding level in the mud pit is reduced from 8 to 6 feet and the mud weight increases from 10 to 12 lbs/gallon, what is the new FSML for the mud pit? | 750 ft-long tons                               | 1,000 ft-long tons                                     | 1,440 ft-long tons               | 1,920 ft-long tons                           |  |
| 4 | 9237 | B | A MODU floating in sea water while displacing 20,000 long tons has transverse free surface moments of 7,500 ft-long tons and longitudinal free surface moments of 10,000 ft-long tons. The maximum virtual rise in the height of the center of gravity due to free surfaces is _____.                   | 0.35 foot                                      | 0.50 foot  | 0.88 foot                        | 2.00 feet                                    |  |

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| 4 | 9241 | A | The DEEP DRILLER, while loaded as shown in the Sample Load Form #5, discharges 137.88 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the starboard forward draft mark? | 41 feet 6 inches  | 42 feet 6 inches   | 43 feet 6 inches   | 44 feet 0 inches  |  |
| 4 | 9243 | B | The DEEP DRILLER, while loaded as shown in the Sample Load #5, discharges 275.8 long tons. The resulting trim by the stern is 3 feet and list to port is 2 feet. What is the draft at the port aft draft mark?                | 43 feet 6 inches  | 45 feet 6 inches   | 48 feet 0 inches   | 49 feet 6 inches  |  |
| 4 | 9245 | C | The object of plugging holes below the waterline on a MODU should be to _____.  | eliminate all water entering the hole                                 | only plug holes in machinery or other vital spaces                   | reduce the entry of water as much as possible                      | plug the largest holes first  |  |
| 4 | 9247 | C | What type of test determines the pressure at which the formation immediately below the last set casing will take fluid?   | Production  | Drill stem   | Leak-off   | Conductor   |  |
| 4 | 9251 | B | For well control, the American Petroleum Institute recommends that hydraulic units have sufficient horsepower to close the annular preventer in _____.  | 15 seconds  | 30 seconds   | 45 seconds   | 60 seconds  |  |
| 4 | 9253 | B | At the instant when a string of casing being run from a MODU is landed in the well head, _____.   | the total weight in air of the casing string is removed from the MODU | the hook load (weight of the casing string) is removed from the MODU | the weight of the casing inside the riser is removed from the MODU | the weight of the casing string added to the weight of the fill-up mud is removed from the MODU |  |
| 4 | 9255 | D | A low pressure annular preventer which is used to direct flow of kick fluids away from the rig floor is called a _____.   | dump valve  | deflector  | separator  | diverter  |  |
| 4 | 9257 | C | The shear rams of a MODU blowout preventer stack are used in emergency well control to _____.   | close and seal around the drill pipe                                  | close and seal around casing   | cut off pipe inside the preventer stack                            | close and seal around drill collars   |  |
| 4 | 9261 | B | The retrievable subsea units that contain the pilot valves and regulators for operating the subsea blowout preventers are called _____.   | accumulators  | control pods   | consoles   | shuttle controls  |  |
| 4 | 9263 | B | A casing string that is run below the previous casing string, but does not extend to the wellhead is called a _____.  | production string   | liner  | packer   | squench joint   |  |

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| 4 | 9265 | C | Oil well casing will fail when the external pressure exceeds the internal pressure by a differential equal to the casing's rated _____.  | tensile strength   | hoop stress                            | collapse pressure   | burst pressure   |  |
| 4 | 9267 | C | Lifeboat winches on a MODU are required to be inspected and an entry made in the logbook. What should this entry include?  | The time required to lower a lifeboat                    | The time required to raise a lifeboat  | The date of inspection and condition of the winch             | All of the above   |  |
| 4 | 9271 | D | You are involved in an emergency landing of a helicopter on the water. You should inflate your life jacket _____.  | upon entering the helicopter                             | prior to reaching the water            | after reaching the water, but prior to exiting the helicopter | after exiting clear of the helicopter                        |  |
| 4 | 9273 | B | After being launched from MODUs, totally enclosed survival craft which have been afloat over a long period require _____.  | frequent opening of hatches to permit entry of fresh air | regular checks of bilge levels         | use of ear plugs to dampen engine noise                       | frequent flushing of the water spray system with fresh water |  |
| 4 | 9275 | D | A jack-up displacing 15,000 kips has a KG of 20 feet. The legs weighing 3,500 kips are lowered 100 feet. What is the new KG?   | 23.33 feet   | 18.67 feet                             | 4.67 feet   | -3.33 feet   |  |
| 4 | 9276 | B | You are underway when a fire breaks out in the forward part of your vessel. If possible, you should _____.   | call for assistance                                      | put the vessel's stern into the wind   | abandon ship to windward                                      | keep going at half speed                                     |  |
| 4 | 9277 | C | A floating jack-up with displacement of 15,000 kips has its LCG 108 feet aft of frame zero (AFO). If 400 kips are loaded at 120 feet AFO and 800 kips are loaded 150 feet AFO, what is the new LCG?            | 100.0 feet   | 109.2 feet                             | 110.4 feet  | 119.2 feet   |  |
| 4 | 9281 | B | A floating jack-up with displacement of 15,000 kips has its LCG 106 feet aft of frame zero (AFO). If 200 short tons are loaded at 20 feet AFO and 400 short tons are loaded 149 feet AFO, what is the new LCG? | 105.5 feet   | 106.0 feet                             | 108.3 feet  | 111.8 feet   |  |
| 4 | 9282 | C | There is a fire aft aboard your vessel. To help fight the fire, you should put the _____.  | wind off either beam                                     | stern into the wind and increase speed | bow into the wind and decrease speed                          | stern into the wind and decrease speed                       |  |
| 4 | 9283 | A | A jack-up with displacement of 10,000 kips has its LCG 100 feet aft of frame zero (AFO). If 200 kips are loaded at 60 feet AFO and 100 kips are discharged from 20 feet AFO, what is the new LCG?              | 100.0 feet   | 100.4 feet                             | 100.8 feet  | 101.2 feet   |  |

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| 4 | 9285 | A | A floating jack-up with displacement of 16,200 kips has its LCG 110.37 feet aft of frame zero (AF0). If 200 short tons are discharged from 120 feet AF0 and 400 short tons are discharged from 150 feet AF0, what is the new LCG?                             | 108.0 feet  | 109.2 feet  | 110.4 feet   | 115.8 feet  |  |
| 4 | 9287 | C | What is the longitudinal shift in the center of gravity if 200 short tons is moved ten feet to port and 30 feet forward on a MODU with a displacement of 8,960 long tons?   | 0.20 foot   | 0.22 foot   | 0.67 foot  | 0.84 foot   |  |
| 4 | 9291 | B | An elevated jack-up weighs 14,000 kips. Its TCG is located 1.0 foot to starboard of the centerline. What would be the new TCG for the jack-up if the drill floor, weighing 700 kips, is skidded 10 feet to port?  | 9.00 feet port                                    | 0.50 foot starboard                               | 0.50 foot port   | 1.00 foot port  |  |
| 4 | 9293 | B | An elevated jack-up weighs 14,000 kips. The drill floor, weighing 700 kips, is skidded 10.0 feet to starboard. The change in TCG is _____.  | 9.00 feet starboard                               | 0.50 foot starboard                               | 1.50 foot starboard  | 1.00 foot starboard   |  |
| 4 | 9295 | B | A jack-up 210 feet in length is level during transit. The LCF is 140 feet aft of the bow. How much weight should be applied at the bow to level the jack-up if 150 kips are loaded at the transom?  | 50 kips   | 75 kips   | 100 kips   | 200 kips  |  |
| 4 | 9301 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). Weather conditions require ballasting to survival draft. Assume that 4087 long tons of ballast are added at an average VCG of 8.32 feet. What would be the value of uncorrected KG? | 51.65 feet  | 52.67 feet  | 55.15 feet   | 62.24 feet  |  |
| 4 | 9303 | B | When displacement increases, the free surface corrections for slack tanks _____.  | increase  | decrease  | are directly proportional  | remain unchanged  |  |
| 4 | 9306 | D | When two generators are operating in parallel, what will happen if one engine driving a generator shuts down?   | The generator that's still running will motorize. | Both generators will immediately shut down.       | The running generator's circuit breaker will immediately trip on overload. | The stalled generator's circuit breaker will trip on reverse power.             |  |
| 4 | 9307 | C | When a rescuer finds an electrical burn victim in the vicinity of live electrical equipment or wiring, his first step is to _____.  | flush water over any burned area of the patient   | apply ointment to the burned areas on the patient | get assistance to shut down electrical power in the area                   | remove the patient from the vicinity of the live electrical equipment or wiring |  |

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| 4 | 9311 | C | Basic emergency care for third degree electrical burn is to _____.                               | flood the burned area with warm water for two minutes                                      | brush away the charred skin and wrap the burned area                           | cover the burned area with a clean cloth and transport the patient to a medical facility | apply ointment or spray to the burned area and wrap with a clean cloth |  |
| 4 | 9313 | A | When a patient has an electrical burn, it is important to _____.                                 | look for a second burn, which may have been caused by the current passing through the body | locate the nearest water source and flood the burn with water for five minutes | remove any dirt or charred skin from the area of the burn                                | apply ointment to the burn area and wrap with clean cloth              |  |
| 4 | 9315 | B | Since electrical burn victims may be in shock, the FIRST medical response is to check for _____. | indication of broken bones   | breathing and heartbeat  | symptoms of concussion   | bleeding injuries  |  |
| 4 | 9317 | A | Which statement is CORRECT with respect to inserting an airway tube?                             | Only a trained person should attempt to insert an airway tube.                             | A size 2 airway tube is the correct size for an adult.                         | The airway tube will not damage the victim's throat.                                     | Inserting the airway tube will prevent vomiting.                       |  |
| 4 | 9321 | C | In battery charging rooms, exhaust ventilation should be provided _____.                         | at the lowest point  | near the batteries   | at the highest point   | only when charging is in progress                                      |  |
| 4 | 9323 | B | A fuel-air mixture below the lower explosive limit is too _____.                                 | rich to burn   | lean to burn   | cool to burn   | dense to burn  |  |
| 4 | 9325 | B | Good housekeeping on a vessel prevents fires by _____.   | allowing better access in an emergency   | eliminating potential fuel sources   | eliminating trip hazards   | improving personnel qualifications                                     |  |
| 4 | 9327 | B | Accumulations of oily rags should be _____.  | kept in nonmetal containers  | discarded as soon as possible  | cleaned thoroughly for reuse   | kept in the paint locker   |  |
| 4 | 9331 | B | Paints and solvents on a vessel should be _____.   | stored safely at the work site until work is completed                                     | returned to the paint locker after each use                                    | covered at all times to protect from ignition sources                                    | stored in a suitable gear locker                                       |  |
| 4 | 9333 | B | After extinguishing a fire with CO2, it is advisable to _____.                                   | use all CO2 available to cool the surrounding area   | stand by with water or other agents  | thoroughly ventilate the space of CO2  | jettison all burning materials   |  |
| 4 | 9335 | A | The disadvantage of using CO2 is that the _____.   | CO2 does not cool the fire   | cylinders are regulated pressure vessels                                       | CO2 is not effective on class "B" fires  | CO2 is not effective on class "C" fires                                |  |
| 4 | 9337 | A | Size I and II fire extinguishers are designated as _____.  | portable   | semi-portable  | fixed  | compact  |  |
| 4 | 9341 | D | Dry chemical extinguishers may be used on what class of fires?                                   | A only   | B only   | B and C only   | A, B or C as marked on the extinguisher                                |  |



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| 4 | 9342 | A | The ventilation system of your ship has fire dampers restrained by fusible links. Which statement is TRUE?  | Fusible links must be replaced if a damper is activated. | Fusible links are tested by applying a source of heat to them.   | Fusible links must be replaced at every inspection for certification. | A fusible link will automatically open after a fire is extinguished and reset the damper. |  |
| 4 | 9347 | C | CO2 cylinders must be recharged when the weight of the charge in the cylinder is less than what percent of the stamped full weight of the charge? | 80%  | 85%  | 90%   | 95%   |  |
| 4 | 9351 | B | Halon from extinguishers used on a class B fire, should be directed _____.  | at the top of the flames                                 | at the base of the fire near the edge                            | in short quick bursts   | toward the upwind side of the fire  |  |
| 4 | 9357 | D | Halon extinguishers used on a class C fire should be directed at the _____.   | base of the equipment                                    | top of the equipment   | power source  | source of the fire  |  |
| 4 | 9361 | C | The principal personnel hazard unique to Halon extinguishers is _____.  | displacement of oxygen                                   | skin irritation  | inhaling toxic vapors   | eye irritation  |  |
| 4 | 9362 | C | You are releasing carbon dioxide gas (CO2) into an engine compartment to extinguish a fire. The CO2 will be most effective if the _____.          | compartment is closed and ventilators are opened         | compartment is left open to the air                              | compartment is closed and airtight                                    | air flow to the compartment is increased with blowers                                     |  |
| 4 | 9363 | B | The primary function(s) of an automatic sprinkler system is(are) to _____.  | extinguish the fire which triggers it                    | limit the spread of fire and control the amount of heat produced | protect people in the areas which have sprinkler heads                | alert the crew to the fire  |  |
| 4 | 9365 | A | When flammable liquids are handled in a compartment on a vessel, the ventilation for that area should be _____.                                   | operated continuously while vapors may be present        | operated intermittently to remove vapors                         | available on standby for immediate use                                | shut down if an explosive mixture is present  |  |
| 4 | 9367 | C | A galley grease fire on the stove may be extinguished using _____.  | water  | foam   | the range hood extinguishing system                                   | fire dampers  |  |
| 4 | 9371 | A | Overhauling a fire in the living quarters on a vessel must include _____.   | opening dead spaces to check for heat or fire            | evacuation of the vessel   | sounding the "all clear" signal                                       | operation of the emergency generator  |  |
| 4 | 9373 | D | If heavy smoke is coming from the paint locker, the FIRST firefighting response should be to _____.   | release the CO2 flooding system                          | open the door to evaluate the extent of the fire                 | enter and use a portable extinguisher                                 | secure the ventilation  |  |
| 4 | 9375 | B | After extinguishing a paint locker fire using the fixed CO2 system, the next action is to have the space _____.                                   | opened and burned material removed                       | left closed with vents off until all boundaries are cool         | checked for oxygen content  | doused with water to prevent reflash  |  |

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| 4 | 9377 | D | After abandoning ship, you should deploy the sea anchor from a liferaft to _____.                              | keep the liferaft from capsizing   | navigate against the current                                      | keep personnel from getting seasick                      | stay in the general location                                  |  |
| 4 | 9381 | C | If the liferaft capsizes, all personnel should leave the raft and _____.                                       | climb onto the bottom  | swim away from the raft   | right the raft using the righting strap                  | inflate the righting bag                                      |  |
| 4 | 9382 | A | Fire in an engine compartment is best extinguished with carbon dioxide gas (CO2) and by _____.                 | completely closing the compartment   | closing the compartment except for the ventilators                | leaving the compartment open to the air                  | increasing the air flow to the compartment by blowers         |  |
| 4 | 9383 | A | Immediately after abandoning a vessel, lookouts should be posted aboard liferafts to look for _____.           | survivors in the water   | food and water  | land   | bad weather   |  |
| 4 | 9385 | A | When personnel are lifted by a helicopter from an inflatable liferaft, the personnel on the raft should _____. | deflate the floor of the raft to reduce the danger of the raft overturning | inflate the floor of the raft to provide for additional stability | remove their life preservers to prepare for the transfer | take in the sea anchor to prevent fouling of the rescue sling |  |
| 4 | 9387 | A | When should you use distress flares and rockets?   | Only when there is a chance of their being seen by rescue vessels          | At half-hour intervals  | At one-hour intervals                                    | Immediately upon abandoning the vessel                        |  |
| 4 | 9391 | C | Once you have established the daily ration of drinking water in a survival situation, how should you drink it? | Small sips at regular intervals during the day                             | The complete daily ration at one time during the day              | One-third the daily ration three times daily             | Small sips only after sunset                                  |  |
| 4 | 9397 | A | CATEGORY I EPIRB's transmit on frequencies that are monitored by _____.  | orbiting satellites in space   | commercial radio stations   | private, commercial, and military aircraft               | Both A & C  |  |
| 4 | 9411 | D | When anchoring in an area with a soft bottom, the fluke angle of an anchor should be set at _____.             | 20°  | 30°   | 40°  | 50°   |  |
| 4 | 9412 | D | Radiation spreads a fire by _____.   | transmitting the heat of a fire through the ship's metal                   | burning liquids flowing into another space                        | heated gases flowing through ventilation systems         | the transfer of heat across an unobstructed space             |  |
| 4 | 9413 | B | When anchoring in an area with a hard bottom, the fluke angle of an anchor should be set at _____.             | 20°  | 30°   | 40°  | 50°   |  |
| 4 | 9414 | A | Blocking open or removing fire dampers can cause _____.  | the fire to spread through the ventilation system                          | fixed foam systems to be ineffective                              | faster cooling of the fire                               | the accumulation of explosive gases                           |  |

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| 4 | 9415 | D | A solution to overcome tripping defects is an arrangement of special plates on either side of the flukes, designed to set them in the correct tripping position. These special plates are called _____. | trippers                                  | stocks   | stabilizers  | palms  |  |
| 4 | 9425 | C | Which formula can be used to calculate metacentric height?  | KM + GM                                   | KM - GM  | KM - KG  | KB + BM  |  |
| 4 | 9427 | B | In the absence of external forces, adding weight on one side of a floating vessel causes the vessel to _____.   | heel until the angle of loll is reached   | list until the center of buoyancy is aligned vertically with the center of gravity | trim to the side opposite TCG until all moments are equal  | decrease draft at the center of flotation        |  |
| 4 | 9431 | D | Subtracting FSCT from KGT yields _____.   | BL  | GMT  | FSCT   | KG   |  |
| 4 | 9435 | A | For an upright vessel, draft is the vertical distance between the keel and the _____.   | waterline                                 | freeboard deck   | Plimsoll mark  | amidships section                                |  |
| 4 | 9437 | B | A wind has caused a difference between drafts starboard and port. This difference is _____.   | list                                      | heel   | trim   | flotation  |  |
| 4 | 9441 | A | The moment of a force is a measure of the _____.  | turning effect of the force about a point | instantaneous value of the force   | stability characteristics of the vessel  | center of gravity location                       |  |
| 4 | 9443 | B | The magnitude of a moment is the product of the force and _____.  | time                                      | lever arm  | displacement   | angle of inclination                             |  |
| 4 | 9445 | A | The difference between the height of the metacenter and the height of the center of gravity is known as the _____.  | metacentric height                        | height of the righting arm   | fore and aft perpendicular   | height of the center of buoyancy                 |  |
| 4 | 9447 | C | When initial stability applies, the height of the center of gravity plus the metacentric height equals the _____.   | free surface moments                      | righting arm   | height of the metacenter   | corrected height of the center of gravity        |  |
| 4 | 9451 | A | Initial stability is indicated by _____.  | GM  | KM   | Deck load  | Maximum allowed KG                               |  |
| 4 | 9453 | A | At all angles of inclination, the metacenter is _____.  | vertically above the center of buoyancy   | vertically above the center of gravity   | at the intersection of the upright vertical centerline and the line of action of the buoyant force | at the geometric center of the underwater volume |  |
| 4 | 9454 | D | If water is rising in the bilge of a lifeboat, you should FIRST _____.  | abandon the survival craft                | check for cracks in the hull   | shift all personnel to the stern   | check the bilge drain plug                       |  |
| 4 | 9455 | A | The original equilibrium position is stable when _____.   | metacentric height is positive            | metacentric radius is positive   | KG exceeds maximum allowable limits  | free surfaces are excessive                      |  |

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| 4 | 9457 | D | The center of buoyancy is located at the _____.  | geometric center of the waterplane area | intersection of the vertical centerline and line of action of the buoyant force | center of gravity of the vessel corrected for free surface effects | geometric center of the displaced volume |  |
| 4 | 9463 | B | The value of the righting arm at an angle of loll is _____.  | negative                                | zero  | positive   | equal to GM                              |  |
| 4 | 9465 | B | When inclined to an angle of list, the value of the righting arm is _____.   | negative                                | zero  | positive   | maximum                                  |  |
| 4 | 9467 | B | When inclined to an angle of list, the value of the righting moment is _____.  | negative                                | zero  | positive   | maximum                                  |  |
| 4 | 9471 | A | What is used as an indicator of initial stability?   | GM                                      | KG  | KM   | GZ                                       |  |
| 4 | 9473 | A | What is the stability term for the distance from the center of gravity (G) to the Metacenter (M), when small-angle stability applies?                        | metacentric height                      | metacentric radius  | height of the metacenter   | righting arm                             |  |
| 4 | 9477 | D | The water in which a vessel floats provides vertical upward support. The point through which this support is assumed to act is known as the center of _____. | effort                                  | flotation   | gravity  | buoyancy                                 |  |
| 4 | 9481 | B | The difference between the initial trim and the trim after loading is known as _____.  | trim                                    | change of trim  | final trim   | change of draft                          |  |
| 4 | 9483 | B | A tank which is NOT completely full or empty is called _____.  | pressed                                 | slack   | inertial   | elemental                                |  |
| 4 | 9485 | B | The difference between the starboard and port drafts due to wind or seas is called _____.  | list                                    | heel  | trim   | flotation                                |  |
| 4 | 9487 | D | The geometric center of the underwater volume of a floating vessel is the center of _____.   | hydrodynamic forces                     | flotation   | gravity  | buoyancy                                 |  |
| 4 | 9491 | D | The difference between the height of the metacenter and the height of the center of gravity is _____.  | KB                                      | KG  | KM   | GM                                       |  |
| 4 | 9493 | B | On a vessel, multiplying a load's weight by the distance of the load's center of gravity above the baseline results in a(n) _____.                           | transverse moment                       | vertical moment   | righting moment  | inclining moment                         |  |
| 4 | 9495 | A | Reducing the liquid free surfaces in a vessel reduces the _____.   | roll period                             | metacentric height  | waterplane area  | vessel's draft                           |  |
| 4 | 9497 | B | Stability is determined principally by the location of the point of application of two forces: the upward-acting buoyant force and the _____.                | upward-acting weight force              | downward-acting weight force  | downward-acting buoyant force                                      | environmental force                      |  |

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| 4 | 9501 | C | Stability is determined principally by the location of the point of application of two forces: the downward-acting gravity force and the _____. | upward-acting weight force      | downward-acting weight force                 | upward-acting buoyant force  | environmental force                     |  |
| 4 | 9503 | C | Stability is determined principally by the location of two points in a vessel: the center of buoyancy and the _____.                            | metacenter                      | geometric center of the waterplane area      | center of gravity            | center of flotation                     |  |
| 4 | 9505 | D | With no environmental forces acting on the vessel, the center of gravity of an inclined vessel is vertically aligned with the _____.            | longitudinal centerline         | center of flotation                          | original vertical centerline | metacenter                              |  |
| 4 | 9507 | D | With no environmental forces, the center of gravity of an inclined vessel is vertically aligned with the _____.                                 | longitudinal centerline         | center of flotation                          | original vertical centerline | center of buoyancy                      |  |
| 4 | 9511 | A | In the absence of external forces, the center of buoyancy of an inclined vessel is vertically aligned directly below the _____.                 | center of gravity               | amidships station                            | center of flotation          | geometric center of the waterplane area |  |
| 4 | 9513 | B | In the presence of external forces, the center of buoyancy of an inclined vessel is vertically aligned with the _____.                          | center of gravity               | metacenter                                   | center of flotation          | keel                                    |  |
| 4 | 9515 | B | With no environmental forces, the center of gravity of an inclined vessel is vertically aligned directly above the _____.                       | longitudinal centerline         | center of buoyancy                           | original vertical centerline | center of flotation                     |  |
| 4 | 9517 | B | Aboard a vessel, dividing the sum of the transverse moments by the total weight yields the vessel's _____.                                      | vertical moments                | transverse position of the center of gravity | inclining moments            | righting moments                        |  |
| 4 | 9521 | A | Aboard a vessel, dividing the sum of the vertical moments by the total weight yields the vessel's _____.  | height of the center of gravity | vertical moments                             | righting moments             | inclining moments                       |  |
| 4 | 9523 | B | When the height of the metacenter is the same as the height of the center of gravity, the upright equilibrium position is _____.                | stable                          | neutral                                      | unstable                     | negative                                |  |
| 4 | 9525 | A | When the height of the metacenter is greater than the height of the center of gravity a vessel has which type of stability?                     | Stable                          | Neutral                                      | Unstable                     | Negative                                |  |
| 4 | 9527 | C | When the height of the metacenter is less than the height of the center of gravity, a vessel has which type of stability?                       | Stable                          | Neutral                                      | Negative                     | Positive                                |  |
| 4 | 9528 | D | You are in Inland Waters of the United States. You may discharge overboard _____.   | bottles                         | metal  | dunnage                      | None of the above                       |  |

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| 4 | 9531 | D | When the height of the metacenter is greater than the height of the center of gravity, the upright equilibrium position is stable and stability is _____. | unstable  | neutral                                      | negative                                      | positive                                      |  |
| 4 | 9533 | A | Unstable equilibrium exists at small angles of inclination when _____.  | G is above M  | G is off the centerline                      | B is off the centerline                       | B is above G                                  |  |
| 4 | 9535 | D | When stability of a vessel is neutral, the value of GM _____.   | only depends on the height of the center of gravity | only depends on the height of the metacenter | is greater when G is low                      | is zero                                       |  |
| 4 | 9537 | C | When the height of the metacenter is less than the height of the center of gravity of a vessel, the upright equilibrium position is _____.                | stable  | neutral                                      | unstable                                      | negative                                      |  |
| 4 | 9541 | B | When the height of the metacenter is the same as the height of the center of gravity of a vessel, the upright equilibrium position is _____.              | stable  | neutral                                      | unstable                                      | negative                                      |  |
| 4 | 9543 | C | Stable equilibrium for a vessel means that the metacenter is _____.   | at a lower level than the baseline                  | on the longitudinal centerline               | higher than the center of gravity             | at amidships                                  |  |
| 4 | 9545 | A | An unstable upright equilibrium position on a vessel means that the metacenter is _____.  | lower than the center of gravity                    | at the same height as the center of gravity  | higher than the baseline                      | on the longitudinal centerline                |  |
| 4 | 9547 | B | A neutral equilibrium position for a vessel means that the metacenter is _____.   | lower than the keel                                 | at the same height as the center of gravity  | exactly at midships                           | at the center of the waterplane area          |  |
| 4 | 9551 | C | When the height of the metacenter is less than the height of the center of gravity, a vessel has which type of stability?                                 | Stable  | Neutral                                      | Unstable                                      | Positive                                      |  |
| 4 | 9553 | A | When the height of the metacenter is greater than the height of the center of gravity, a vessel is in _____.  | stable equilibrium                                  | neutral equilibrium                          | unstable equilibrium                          | negative equilibrium                          |  |
| 4 | 9557 | C | Longitudinal moments are obtained by multiplying a vessel's weight and its _____.   | VCG or KG   | LCB  | LCG   | TCG   |  |
| 4 | 9561 | A | Vertical moments are obtained by multiplying a vessel's weight and its _____.   | VCG or KG   | LCB  | LCG   | TCG   |  |
| 4 | 9562 | B | The most likely location for a liquid cargo fire to occur on a tanker would be _____.   | the midships house                                  | in the pumproom                              | at the vent header                            | at the main deck manifold                     |  |
| 4 | 9563 | B | The KG of a vessel is found by dividing the displacement into the _____.  | height of the center of gravity of the vessel       | sum of the vertical moments of the vessel    | sum of the free surface moments of the vessel | sum of the longitudinal moments of the vessel |  |

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| 4 | 9564 | C | Automatic fire dampers in ventilation systems are operated by use of _____.   | remotely operated valves   | C02 system pressure switches   | fusible links   | heat or smoke detectors   |  |
| 4 | 9565 | C | The LCG of a vessel may be found by dividing displacement into the _____.   | longitudinal center of gravity of the vessel   | sum of the vertical moments of the vessel  | sum of the longitudinal moments of the vessel               | longitudinal baseline of the vessel   |  |
| 4 | 9567 | C | The correction to KG for transverse free surface effects may be found by dividing the vessel's displacement into the _____.   | transverse free surface correction for the vessel                                      | sum of the vertical moments of the vessel  | sum of the transverse free surface moments of the vessel    | transverse baseline of the vessel   |  |
| 4 | 9571 | C | The correction to KG for longitudinal free surface effects for a vessel can be found by dividing the vessel's displacement into the _____.  | transverse free surface correction for the vessel                                      | sum of the vertical moments of the vessel  | sum of the longitudinal free surface moments of the vessel  | longitudinal centerline of the vessel   |  |
| 4 | 9573 | A | A floating vessel will behave as if all of its weight is acting downward through the _____.   | center of gravity  | center of buoyancy   | center of flotation   | metacenter  |  |
| 4 | 9575 | A | While preloading, the COASTAL DRILLER has a total weight of 21,401 kips. The LM are 2,560,416 ft-kips, and the TM are 6,206 ft-kips. What is the bow leg reaction?  | 7,099 kips   | 7,134 kips   | 7,151 kips  | 7,203 kips  |  |
| 4 | 9577 | B | When is the density of the water required to be logged in the logbook of a MODU?  | Any time the vessel moves from water of one density into waters of a different density | Prior to getting underway when the vessel is floating in fresh or brackish water | Only when the vessel moves from fresh water into salt water | The density of the water is not required to be logged in the unofficial logbook |  |
| 4 | 9581 | A | The C02 flooding system is actuated by a sequence of steps which are _____.   | break glass, pull valve, break glass, pull cylinder control                            | sound evacuation alarm, pull handle  | open bypass valve, break glass, pull handle                 | open stop valve, open control valve, trip alarm                                 |  |
| 4 | 9583 | A | Each person on a MODU carrying immersion suits must wear the immersion suit in a boat drill, or participate in a drill which includes donning the suit and being instructed in its use at least once every _____. | month  | 2 months   | 3 months  | 6 months  |  |
| 4 | 9585 | A | While retrieving the survival craft, the engine should be stopped _____.  | when the craft clears the water  | when the cable has been attached   | on approach to the platform                                 | at the embarkation deck   |  |
| 4 | 9587 | A | The DEEP DRILLER is loaded as shown in the Sample Load Form #1 (Transit). What is the new transverse free surface correction (FSCT) if the entire contents of Salt Water Ballast Tanks 1P and 1S are discharged?  | 0.46 foot  | 0.71 foot  | 1.08 feet   | 1.44 feet   |  |

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| 4 | 9591 | B | The DEEP DRILLER is loaded as shown in the Sample Load Form #2 (Ballasting to Survival). What is the new draft if all the bulk materials are discharged?  | 36.23 feet          | 44.27 feet         | 45.73 feet                      | 53.77 feet         |  |
| 4 | 9593 | D | A semisubmersible floating in sea water displaces 717,500 cubic feet. What is the displacement?   | 11,211 long tons    | 11,498 long tons   | 19,977 long tons                | 20,500 long tons   |  |
| 4 | 9595 | A | A non-symmetrical tank aboard a MODU contains 390 tons of ballast at a VCG of 9.85 feet. Ballast weighing 250 tons and a VCG of 12.0 feet is discharged. The vertical moments for the remaining ballast is _____.   | 842 ft-long tons    | 3,000 ft-long tons | 3,842 ft-long tons              | 6,842 ft-long tons |  |
| 4 | 9597 | D | The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival), when an unexpected, slowly increasing port list and bow down trim occurs. A leak in C1P is found. By deballasting from ballast tanks 2P and 3P, the inclination slowly decreases. The increase in the longitudinal free surface correction is _____.   | 0.90 foot           | 0.83 foot          | 0.57 foot                       | 0.49 foot          |  |
| 4 | 9601 | C | The DEEP DRILLER is loaded as shown in the Sample Load Form #5 (Survival) when an unexpected slowly increasing starboard list and bow down trim occurs. A leak in 1S is found. By deballasting from ballast tanks 2S and 3S, the inclination slowly decreases. The increase in the longitudinal free surface correction is _____. | 1.25 feet           | 0.90 foot          | 0.83 foot                       | 0.34 foot          |  |
| 4 | 9603 | B | During the passage of a severe storm the maximum vertical moments, including free surface moments, permitted on the DEEP DRILLER at survival draft is _____.  | 998,942 ft-tons     | 996,522 ft-tons    | 990,430 ft-tons                 | 889,555 ft-tons    |  |
| 4 | 9604 | B | Except in rare cases, it is impossible to extinguish a shipboard fire by _____.   | removing the oxygen | removing the fuel  | interrupting the chain reaction | removing the heat  |  |
| 4 | 9605 | C | The COASTAL DRILLER, in transit with winds less than 70 knots, has a draft of 10 feet 8 inches. The VM are 541,257 ft-kips, FSML are 32,000 ft-kips, and FSMT are 24,000 ft-kips. The margin on the maximum allowable KG is _____.  | -2.3 feet           | 0.0 feet           | 23.7 feet                       | 26.0 feet          |  |



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| 4 | 9606 | C | You are fighting a Class B fire with a portable dry chemical extinguisher. The discharge should be directed _____.  | over the top of the fire  | to bank off a bulkhead onto the fire  | at the seat of the fire, starting at the near edge  | at the main body of the fire  |  |
| 4 | 9607 | A | There is a fire aft aboard your vessel. To help fight the fire, you should _____.   | head the bow into the wind and decrease speed   | put the wind off either beam  | put the stern into the wind and increase speed  | put the stern into the wind and decrease speed  |  |
| 4 | 9608 | C | On small passenger vessels how many supply and exhaust ducts are required in each enclosed space containing gasoline powered machinery or gasoline fuel tanks?                                | 4 of each   | 3 of each   | 2 of each   | 1 of each   |  |
| 4 | 9611 | B | A crew member reports that the high-pressure alarm light of a low-pressure CO2 fixed fire extinguishing system is illuminated. The most probable cause of this condition would be that _____. | an air leak has developed in the tank   | the tank cooling system has malfunctioned   | the pilot cylinder discharge valve is leaking   | an excessive amount of insulation has been installed on the tank and piping             |  |
| 4 | 9612 | A | What would be a major consequence of the refrigeration system for a low-pressure CO2 fixed fire extinguishing system remaining inoperable?  | The entire charge might eventually be lost due to CO2 venting out through the relief valve. | Liquid CO2 would vent out through the safety valve as the temperature increases.                          | Excessive condensation inside the tank would freeze, causing a restriction in the discharge piping.               | The warmed charge of CO2 would not be effective in extinguishing a fire.                |  |
| 4 | 9613 | D | When a ship's low-pressure CO2 fixed fire extinguishing system is activated from a remote location, what determines the quantity of CO2 being released into a selected space?                 | The number of discharge nozzles in the space determines the quantity released.              | The discharge will continue until the temperature of the space returns to its normal ambient temperature. | The main CO2 tank is partitioned into sections that are individually designated for each of the protected spaces. | A pneumatic timer controls each discharge selector valve, and is preset for each space. |  |
| 4 | 9614 | C | The normal designed CO2 storage tank temperature and pressure associated with a ship's low-pressure CO2 fixed fire extinguishing system is approximately _____.                               | 0°F at 50 PSI   | 70°F at 150 PSI   | 0°F at 300 PSI  | 70°F at 500 PSI   |  |
| 4 | 9621 | B | You notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following would you do FIRST?  | Protect the adjacent spaces on the same deck as the laundry room.                           | Locate and use the nearest portable extinguisher, if conditions permit.                                   | Protect the compartment directly above the laundry room.  | Go to the nearest fire station and break out the hose.                                  |  |
| 4 | 9622 | A | You notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following would you do FIRST?  | Attempt to determine what is burning.   | Acquire the nearest self contained breathing apparatus.   | Break out the nearest fire hose.  | Wait for the fire team to arrive and assist as directed.                                |  |

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| 4 | 9623 | D | You detect an odor of burning electrical insulation and then notice smoke coming from an open laundry room doorway. After activating the fire alarm, which of the following is the LEAST likely of your next actions? | Close the door to the room.  | Locate the nearest CO2 or dry chemical extinguisher.  | Secure power to the washers and dryers.  | Break out the nearest fire hose.                       |  |
| 4 | 9624 | D | You detect an odor of burning cotton fabric and then see smoke coming from the top of an open laundry room doorway. After activating the fire alarm, you might do any of the following next, EXCEPT _____.            | begin breaking out the nearest fire hose   | secure ventilation to the room  | close the door to the room   | acquire the nearest self contained breathing apparatus |  |
| 4 | 9631 | B | Fixed carbon dioxide extinguishing systems, for machinery spaces that are normally manned, are actuated by one control to open the stop valve in the line leading to the space, and _____.                            | the same control releasing the CO2   | a separate control to release the CO2   | two separate controls to release the CO2   | three separate controls to release the CO2             |  |
| 4 | 9632 | B | In a fixed carbon dioxide extinguishing system for a machinery space, designed WITH a stop valve in the line leading to the protected space, the flow of CO2 is established by actuating _____.                       | one control  | two controls  | three controls   | none of the above                                      |  |
| 4 | 9633 | D | Which of the following statements is true concerning the control activators, i.e., pull-handles, push-buttons or levers, for a space protected by a CO2 fixed fire extinguishing system?                              | Only one control activator is required for discharge piping systems designed without a stop valve. | Two control activators are required when a stop valve is installed in the main discharge line to a space. | An alarm must sound for at least 20 seconds before CO2 is released into a space that is likely to be occupied. | All of the above                                       |  |
| 4 | 9634 | A | A fixed carbon dioxide extinguishing system for a machinery space, designed WITHOUT a stop valve in the line leading to the protected space, is actuated by _____.  | one control  | two controls  | three controls   | none of the above                                      |  |
| 4 | 9641 | B | The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.                            | 1 long ton   | 300 pounds  | 900 pounds   | 1,500 pounds   |  |
| 4 | 9642 | A | The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.                            | 300 pounds   | 400 pounds  | 500 pounds   | 600 pounds   |  |

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| 4 | 9643 | D | The carbon dioxide cylinders of a fixed fire extinguishing system may be located inside the protected space, if the quantity of CO2 required to protect that space is not more than _____.               | 1,000 pounds  | 750 pounds   | 500 pounds   | 300 pounds  |  |
| 4 | 9651 | A | In a fixed CO2 fire extinguishing system where pressure from pilot cylinders is used to release the CO2 from the main bank of cylinders, the number of required pilot cylinders shall be at least _____. | 2   | 3  | 4  | 6   |  |
| 4 | 9652 | B | When pilot cylinder pressure is used as a means to release the CO2 from a fixed fire extinguishing system consisting of four storage cylinders, the number of pilot cylinders shall be at least _____.   | 1   | 2  | 3  | 4   |  |
| 4 | 9661 | D | In a fixed CO2 extinguishing system where provision is made for the release of CO2 by operation of a remote control, provision shall also be made for releasing the CO2 _____.                           | from inside the engine room   | from the bridge  | from the cargo control station   | at the cylinder location                                  |  |
| 4 | 9662 | C | Which of the following statements is FALSE, concerning the regulations pertaining to the cylinder room of a fixed CO2 fire extinguishing system?   | The compartment must be properly ventilated.                                    | The temperature of the room should never exceed 130°F.       | The door must be kept unlocked.  | The compartment shall be clearly marked and identifiable. |  |
| 4 | 9671 | A | When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.   | rotate personnel, due to heat stress  | station personnel on the hot deck immediately above the fire | stay low by crouching or kneeling on deck  | All of the above  |  |
| 4 | 9672 | B | When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.   | not rotate personnel, as the consistent attack can extinguish the fire quickly. | stand erect, to avoid the heat of the deck                   | station personnel on the hot deck, immediately above the fire, to observe for its potential spread | All of the above  |  |
| 4 | 9673 | D | When fighting a large fire on your vessel and attacking it from ABOVE the space on fire, it is important to _____.   | rotate personnel, due to heat stress  | stand erect, to avoid the heat of the deck                   | cool the deck directly above the space on fire   | All of the above  |  |
| 4 | 9681 | C | What is the minimum period of time that the air supply for a self-contained breathing apparatus is required to last?   | 10 minutes  | 15 minutes   | 30 minutes   | 45 minutes  |  |

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|---|------|---|---|---|--|---|---------------------|--|
| 4 | 9682 | B | What is the minimum period of time that the air supply for a self-contained breathing apparatus is required to last?          | 15 minutes  | 30 minutes   | 45 minutes  | 60 minutes          |  |
| 4 | 9700 | D | The regulations governing the sleeping accommodations of a cargo vessel are found in _____.                                   | 46 CFR subchapter S   | 46 CFR subchapter T  | 46 CFR subchapter B   | 46 CFR subchapter I |  |
| 4 | 9701 | A | Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"?  | The spaces shall be fitted with an approved fire or smoke detecting system. | The spaces shall have designated smoking areas.                                  | The spaces are prohibited from being fitted with fixed CO2 fire extinguishing systems.          | All of the above    |  |
| 4 | 9702 | B | Which of the following is/are NOT required on Ro-Ro vessels, regarding spaces that are "specially suitable for vehicles"?     | The spaces shall be fitted with an approved fire or smoke detecting system. | The spaces shall have designated smoking areas.                                  | The spaces shall be fitted with an approved fixed fire extinguishing system.                    | All of the above    |  |
| 4 | 9703 | C | Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"? | The spaces shall be fitted with an approved fire or smoke detecting system. | The spaces shall be fitted with an approved fixed fire extinguishing system.     | The installation of a water sprinkler extinguishing system is prohibited.                       | All of the above    |  |
| 4 | 9704 | D | Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces which are "specially suitable for vehicles"? | The spaces shall be fitted with an approved fire or smoke detecting system. | The spaces shall be fitted with an approved fixed fire extinguishing system.     | The Commandant may permit the installation of an approved water sprinkler extinguishing system. | All of the above    |  |
| 4 | 9705 | A | Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"? | The spaces shall NOT be fitted with a flame detecting system.               | The spaces shall be fitted with an approved fixed CO2 fire extinguishing system. | As an alternative to a fixed CO2 system, the Commandant may permit a water sprinkler system.    | All of the above    |  |

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| 4 | 9706 | B | Which of the following statements is/are FALSE in regard to Ro-Ro vessels' spaces that are "specially suitable for vehicles"? | The spaces shall be fitted with an approved fire or smoke detecting system. | The spaces shall NOT be fitted with fixed CO2 fire extinguishing systems. | The Commandant may permit the installation of an approved water sprinkler extinguishing system. | All of the above |  |
| 4 | 9707 | C | Which casualty involving a mobile offshore drilling unit would require a report to be filed?                                  | Damage to property of \$20,000  | An injury treated by first aid  | An occurrence materially and adversely affecting the vessel's fitness for service               | All of the above |  |