

BK	NUM	ANS	QUESTION	ANS A	ANS B	ANS C	ANS D	ILLUS
11	4508	D	If you find the pressure of an R-12 refrigeration system to be worked on is 0 psig, you will need to _____.	only recover the vapor refrigerant	only recover the liquid refrigerant in the system	recover liquid and vapor refrigerant and have it reclaimed	repair the leak before being able to pull a vacuum on the system	
11	4557	A	Cavitation in a hydraulic pump is the _____.	compression and collapse of vapor bubbles on the pump internals	pitting of the pump internals due to galvanic action	pitting of the pump internals due to acidic oil	none of the above	
11	4558	A	The component shown in the illustration is a graphic representation of a _____.	two-stage hydraulic pump unit	double pump unit	bi-directional flow pump	single stage constant flow pump	GS-0096
11	4559	A	If a hydraulic pump sounds like it is pumping rocks when in operation, the problem is most likely _____.	cavitation	galvanic action	slippage	None of the above	
11	4611	A	Which of the following conditions would indicate that the liquid line strainer in a refrigeration system has become excessively restricted and requires cleaning or replacement?	Noticable temperature drop between the strainer inlet and the outlet tubing.	Frosting at the outlet of the receiver.	Frosting at the inlet of the compressor.	Excessively high suction pressure.	
11	4619	B	According to 46 CFR Part 113, what would be the maximum time delay period allowed for a ships steering system to reach a 15 degree right rudder helm order from midships, before an alarm condition will be indicated?	5 seconds	10 seconds	15 seconds	20 seconds	
11	4626	B	As shown in the illustration, which of the following statements is true concerning the hydraulic circuit of the vane type steering gear system shown?	The area labeled "C" and "H" would be pressurized for a right rudder command.	The area labeled "E" and "H" would be pressurized for a right rudder command.	The area labeled "E" and "H" would be pressurized for a left rudder command.	The area labeled "E" and "G" would be pressurized for a right rudder command.	GS-0178
11	4627	D	As shown in the illustration, which of the following statements is true concerning the hydraulic circuit of the vane type steering gear system shown?	The area labeled "H" and "E" would be pressurized for a right rudder command.	The spring loaded valves in the area labeled "F", function to provide steering motor pressure relief protection.	The component labeled "D" would be attached to the rudder stock.	all of the above	GS-0178
11	4628	A	As shown in the illustration, which of the following statements is true concerning the hydraulic circuit of the vane type steering gear system shown?	The function of component "K" is to prevent over-travel for a right rudder command.	The function of component "K" is to prevent over-travel for a left rudder command.	The function of the spring loaded valves in area "F" is to prevent over-travel for a right rudder command.	The function of the spring loaded valves in area "F" is to prevent over-travel for a left rudder command.	GS-0178

11	4629	A	As shown in the illustration, which of the following statements is true concerning the hydraulic circuit of the vane type steering gear system shown?	The function of component "J" is to provide emergency hand pump operation.	The function of component "K" is to prevent over-travel for a left rudder command.	The function of the spring loaded valves in area "F" is to prevent over-travel for a right rudder command.	The function of the spring loaded valves in area "F" is to prevent over-travel for a left rudder command.	GS-0178
11	4655	A	If the numerical designation indicated on the outside of a hydraulic hose is BXP-10, the "dash size" 10 indicates that the inside diameter of the hose is _____.	5/8 inch	3/4 inch	7/8 inch	1 inch	
11	4657	A	If the recommended cutting speed for bronze is 110 FPM, what should be the approximate lathe RPM when reconditioning the outside circumference of an 8 inch bronze centrifugal pump impeller?	53 RPM	106 RPM	212 RPM	636 RPM	
11	4668	B	Which of the following figures is INCORRECT regarding the direction of flow and shaft rotation for the lobe type pump shown?	A	B	C	D	GS-0179
11	4669	A	According to the illustration, which of the following conditions would most likely cause Pump "A" to short cycle?	The hydro-pneumatic expansion tank is operating with an insufficient air charge.	The hydro-pneumatic tank is operating with a low water level.	A low water level exists in the potable water storage tank.	Pump "A" wearing rings have excessive clearance.	GS-0173
11	4670	A	Copper tubing is manufactured and classified as type K, L, and M. Which type would offer the greatest wall thickness for a given nominal size?	Type K	Type L	Type M	Type L and M have identical wall thicknesses	
11	4689	C	A hydraulic system gear pump being fed from a reservoir frequently indicates signs of excessive pitting after two months of service. Which of the following would most likely contribute to this condition?	Abnormal pressurization is occurring in the reservoir.	A partial restriction in the return line has developed.	A vacuum condition has developed in the reservoir.	Operating oil temperature is determined to be below normal.	
11	4690	A	A hydraulic system gear pump being fed from a reservoir indicates signs of excessive pitting after two months of service. Which of the following would most likely contribute to this condition?	Excessive dust conditions have clogged the reservoir breather cap.	A partial restriction in the return line has developed.	Abnormal pressurization is occurring in the reservoir.	Operating oil temperature is determined to be below normal.	

11	4720	B	In the hydraulic crane circuit illustrated, which would be the correct hydraulic configuration required to raise the boom?	Activate directional valve 9 and shift spool valve to area 3.	Activate directional valve 9 and shift spool valve to area 1.	Activate directional valve 8 and shift spool valve to area 3.	Activate directional valve 8 and shift spool valve to area 1.	GS-0161
11	4721	A	In the hydraulic crane circuit illustrated, what is the function of the component labeled #18?	Provide additional control when lowering the boom.	Provide additional control when swiveling the platform.	Control the lowering speed of the winch cable.	Provide a pressure relief if the boom becomes overloaded.	GS-0161
12	1768	C	Some electrical schematics use "binary values" (Base 2), to represent and identify automation alarm addresses. Which of the following represents the "binary value" for the decimal number 7 (Base 10) ?	O110	1110	O111	1001	
12	1769	D	Some electrical schematics use "binary values" (Base 2), to represent and identify automation alarm addresses. Which of the following represents the "binary value" for the decimal number 9 (Base 10) ?	O110	1110	O111	1001	
12	1778	B	What would be the terminal voltage and amp-hour capacity at terminals A and B if each battery was rated at 50 amp-hours and 6 volts?	6 volts and 50 amp-hours	12 volts and 150 amp-hours	24 volts and 200 amp-hours	36 volts and 300 amp-hours	EL-0107
12	1779	D	What would be the terminal voltage and amp-hour capacity at terminals A and B if each battery was rated at 50 amp-hours and 12 volts?	12 volts and 50 amp-hours	12 volts and 150 amp-hours	24 volts and 50 amp-hours	24 volts and 150 amp-hours	EL-0107
12	1780	A	What would be the terminal voltage and amp-hour capacity at terminals A and B if each battery was rated at 200 amp-hours and 6 volts?	12 volts and 600 amp-hours	12 volts and 1200 amp-hours	36 volts and 600 amp-hours	36 volts and 1200 amp-hours	EL-0107
12	1787	D	Power conversion for use in AC propulsion drive motors can be accomplished by _____.	cycloconverters	pulse width modulated inverters	load commutated inverters	All of the above	
12	1789	B	Which of the following is a disadvantage of electric drive propulsion systems?	The propeller speed and direction of rotation are easily controllable.	Propulsion motors are required along with electrical power generation machinery.	Location of electric power generation machinery is flexible.	Main propulsion power may also be directed to ships electrical service distribution.	
12	1799	D	Speed control of a DC propulsion motor is accomplished by _____.	adjusting the output frequency of the power source	the use of a load-commutated inverter	the use of static power converters	adjusting the input voltage to the motor	

12	1815	C	The rotation of the main propulsion motor in a modern AC propulsion drive system is reversed by _____.	changing the direction of current flow in the motor's field winding	reversing the direction of current flow in the armature	electronically changing the phase sequence of the voltages generated by the power converter	power directional relays	
12	1817	C	The Azipod propulsion system is a _____.	electric drive system using water jets	electric drive system that incorporates a DC motor	electric drive system where the propulsion motor is installed in a submerged housing capable of swiveling	electric drive system in which the motor drives a controllable pitch propeller (CPP)	
12	1818	D	Which of the following statement is FALSE concerning Azipod propulsion systems?	The pod assembly swivels on a vertical axis.	The system allows full turns at high speed.	The system eliminates the need for a separate rudder.	The system requires the use of a controllable pitch propeller.	
12	1819	B	An electric propulsion drive system in which the propulsion generator only supplies power to the propulsion motor is referred to as a _____.	integrated system	dedicated system	composite system	multi-purpose system	
13	2050	C	In the event of failure of the bellows "I" shown in the illustration (SE-0019), _____.	piston "F" moves upward to open the exhaust valve and close the makeup steam valve.	piston "F" moves upward to close the exhaust valve and open the makeup steam valve	piston "F" moves downward to close the exhaust valve and open the steam makeup valve	piston "F" moves downward to open the exhaust valve and close the steam makeup valve	SE-0019
13	2052	B	The purpose of the manual control handwheel shown in the illustration (SE-0019) is to provide for _____.	precise control of the gland steam pressure to the turbine glands when maneuvering	the manual positioning of the gland seal steam makeup valve "B" and exhaust valve "E"	precise control of the gland steam pressure to the turbine glands at full load	precise control of the gland steam pressure to the turbine glands when maneuvering	SE-0019
13	2053	B	During maneuvering, a vessel has just proceeded from full ahead to a dead slow condition. Which of the following actions reflects the first response of the gland seal regulator shown in the illustration SE-0004?	Pilot valve "J" would move upward.	Valve "D" would open.	Bellows and connecting link would move upward.	Valve "C" would open.	SE-0004

13	2054	B	For the gland seal regulator shown in the illustration (SE-0019), an increase in gland seal pressure will result in _____.	piston "F" moving downward to shut the makeup steam valve "B" and open the exhaust valve "E"	piston "F" moving upward to shut the makeup steam valve "B" and open the exhaust valve "E"	piston "F" moving downward to open the makeup steam valve "B" and close the exhaust valve "E"	piston "F" moving upward to open the makeup steam valve "B" and close the exhaust valve "E"	SE-0019
13	2058	B	From the data shown in the illustration, what would be the speed of the L.P. turbine rotor if the propeller shaft was turning at 90 RPM?	1,545 RPM	2,794 RPM	3,947 RPM	4,316 RPM	SE-0022
14	2130	A	What condition listed below would specifically indicate that a pump overhaul was necessary for a centrifugal saltwater service pump.	Indicated head pressure does not change when discharge valve is closed.	Observed operational speed has decreased	Excessive noise coming from drive motor	Excessive noise coming from pump coupling	
14	2133	D	What condition listed below would indicate that a pump overhaul was necessary for a centrifugal saltwater service pump.	Indicated head pressure does not change when the discharge valve is closed	Pump vibration has increased	Shaft packing gland requires constant repacking due to an excessively worn sleeve	All of the above	
14	2136	A	What indications would you use to determine that a pump overhaul was necessary for a salt water service centrifugal pump assuming normal salt water supply conditions?	Shutoff head pressure had dropped by 20%	Noticeable decrease in operational speed	Pump coupling requires constant maintenance	All of the above	
15	524	D	According to 33 CFR's, the approval period for a shipboard oil pollution emergency plan expires after _____.	one year	two years	four years	five years	
15	2319	C	With regards to a ship's Oil Record Book, an oil tanker of 150 gross tons and above must maintain entries in _____.	Part I only	Part II only	Both Part I and Part II	Part III	
15	3003	A	The Oil Record Book for all U.S. ships _____.	is the property of the U.S. government	is to be kept in the personal possession of the Master	should not be used to record the accidental discharge of oily or oily mixtures	is required to have entries recorded within 48 hours of completion of the particular operation	
15	3006	B	Which ship must maintain Part II (Cargo/Ballast Operations) of the Oil Record Book?	A ship of 150 gross tons or above, other than an oil tanker.	A non-tanker that carries more than 200 cubic meters of oil in bulk.	An oil tanker of 100 gross tons or above.	A ship of 200 gross tons or above, other than an oil tanker.	
15	3007	C	Each operation involving the transfer of oil or oily mixture that requires an entry in the OIL Record Book shall be fully recorded _____.	within 24 hours of completion of the project	within 48 hours of completion of the operation	without delay	within 12 hours of completion of the operation	

