07/07/2008
Bank: (Aviation Mechanic Airframe)
Airman Knowledge Test Question Bank

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1. AMA021 AMA

The I beam wooden spar is routed to

A) increase strength.

B) obtain uniform strength.

C) reduce weight.

2. AMA102 AMA

Glue deterioration in wood aircraft structure is indicated

A) when a joint has separated and the glue surface shows only the imprint of the wood with no wood fibers clinging to the glue.

B) when a joint has separated and the glue surface shows pieces of wood and/or wood fibers clinging to the glue.

C) by any joint separation.

3. AMA102 AMA

Which of the following conditions will determine acceptance of wood with mineral streaks?

A) Careful inspection fails to reveal any decay.

B) They produce only a small effect on grain direction.

C) Local irregularities do not exceed limitations specified for spiral and diagonal grain.

4. AMA102 AMA

Laminated wood is sometimes used in the construction of highly stressed aircraft components. This wood can be identified by its

A) parallel grain construction.

B) similarity to standard plywood construction.

C) perpendicular grain construction.

5. AMA021 AMA

The cantilever wing uses

A) external struts or wire bracing.
B) no external bracing.
C) the skin to carry most of the load to the wing butt.

6. AMA102 AMA
In cases of elongated boltholes in a wood spar or cracks in the vicinity of boltholes,
A) it is permissible to ream the hole, plug with hardwood, and redrill.
B) the spar may be reinforced by using hardwood reinforcing plates.
C) a new section of spar should be spliced in or the spar replaced entirely.

7. AMA102 AMA
The strength of a well designed and properly prepared wood splice joint is provided by the
A) bearing surface of the wood fibers.
B) glue.
C) reinforcement plates.

8. AMA040 AMA
(1) Machine sewn seams in aircraft covering fabrics may be of the folded fell or French fell types.
(2) A plain lapped seam is never permissible.
Regarding the above statements,
A) both No. 1 and No. 2 are true.
B) only No. 1 is true.
C) only No. 2 is true.

9. AMA040 AMA
When dope-proofing the parts of the aircraft structure that come in contact with doped fabric, which of the following provide an acceptable protective coating?
1. Aluminum foil.
2. Resin impregnated cloth tape.
3. Any one-part type metal primer.
4. Cellulose tape.
A) 1 and 2.
B) 1 and 4.
C) 3 and 4.

10. AMA040 AMA
The strength classification of fabrics used in aircraft covering is based on
A) bearing strength.

B) shear strength.

C) tensile strength.

11. AMA040 AMA

Finishing tape (surface tape) is used for what purpose?

A) To help prevent 'ripple formation' in covering fabric.

B) To provide additional anti-tear resistance under reinforcement tape.

C) To provide additional wear resistance over the edges of fabric forming structures.

12. AMA040 AMA

The determining factor(s) for the selection of the correct weight of textile fabric to be used in covering any type of aircraft is the

A) maximum wing loading.

B) speed of the aircraft.

C) speed of the aircraft and the maximum wing loading.

13. AMA040 AMA

Before applying a protective coating to any unpainted clean aluminum, you should

A) wipe the surface with avgas or kerosene.

B) remove any conversion coating film.

C) avoid touching the surface with bare hands.

14. AMA040 AMA

What is likely to occur if unhydrated wash primer is applied to unpainted aluminum and then about 30 to 40 minutes later a finish topcoat, when the humidity is low?

A) Corrosion.

B) A glossy, blush-free finish.

C) A dull finish due to the topcoat 'sinking in' to primer that is still too soft.

15. AMA088 AMA

If registration numbers are to be applied to an aircraft with a letter height of 12 inches, what is the minimum space required for the registration mark N1683C?

Note:

2/3 x height = character width.

1/6 x height = width for 1.

1/4 x 2/3 height = spacing.

1/6 x height = stroke or line width.

A) 52 inches.

B) 48 inches.

C) 57 inches.

16. AMA040 AMA

Which type of coating typically includes phosphoric acid as one of its components at the time of application?

A) Wash primer.

B) Epoxy primer.

C) Zinc chromate primer.

17. AMA040 AMA

Aluminum-pigment in dope is used primarily to

A) provide a silver color.

B) aid in sealing out moisture from the fabric.

C) reflect ultraviolet from the fabric.

18. AMA040 AMA

Which defect in aircraft finishes may be caused by adverse humidity, drafts, or sudden changes in temperature?

A) Orange peel.

B) Blushing.

C) Pinholes.

19. AMA094 AMA

If it is necessary to compute a bend allowance problem and bend allowance tables are not available, the neutral axis of the bend can be

A) represented by the actual length of the required material for the bend.

B) found by adding approximately one half of the stock thickness to the bend radius.

C) found by subtracting the stock thickness from the bend radius.

20. AMA094 AMA

The sharpest bend that can be placed in a piece of metal without critically weakening the part is called the

A) bend allowance.

B) minimum radius of bend.

C) maximum radius of bend.

21. AMA094 AMA

A piece of sheet metal is bent to a certain radius. The curvature of the bend is referred to as the

A) bend allowance.

B) neutral line.

C) bend radius.

22. AMA094 AMA

The purpose of a joggle is to

A) allow clearance for a sheet or an extrusion.

B) increase obstruction for a sheet or an extrusion.

C) decrease the weight of the part and still retain the necessary strength.

23. AMA094 AMA

(Refer to Airframe figure 6.) Determine the dimensions of A, B, and C in the flat layout.

Setback = .252

Bend allowance = .345

A) A = .748; B = 2.252; C = 2.004.

B) A = .748; B = 1.496; C = 1.248.

C) A = 1.252; B = 2.504; C = 1.752.

24. AMA094 AMA

The sight line on a sheet metal flat layout to be bent in a cornice or box brake is measured and marked

A) one-half radius from either bend tangent line.

B) one radius from either bend tangent line.

C) one radius from the bend tangent line that is placed under the brake.

25. AMA094 AMA

On a sheet metal fitting layout with a single bend, allow for stretching by

A) adding the setback to each leg.

B) subtracting the setback from one leg.

C) subtracting the setback from both legs.

26. AMA094 AMA

(Refer to Airframe figure 4.) The length of flat A is

A) 3.750 inches.

B) 3.875 inches.

C) 3.937 inches.

27. AMA094 AMA

(Refer to Airframe figure 5.) What is the flat layout dimension?

A) 7.0 inches.

B) 6.8 inches.

C) 6.6 inches.

28. AMA016 AMA

You can distinguish between aluminum and aluminum alloy by

A) filing the metal.

B) testing with an acetic acid solution.

C) testing with a 10 percent solution of caustic soda.

29. AMA037 AMA

When inspecting a composite panel using the ring test/tapping method, a dull thud may indicate

A) less than full strength curing of the matrix.

B) separation of the laminates.

C) an area of too much matrix between fiber layers.

30. AMA037 AMA

One of the best ways to assure that a properly prepared batch of matrix resin has been achieved is to

A) perform a chemical composition analysis.

B) have mixed enough for a test sample.

C) test the viscosity of the resin immediately after mixing.

31. AMA004 AMA

Cabin upholstery materials installed in current standard category airplanes must

A) be fireproof.

B) be at least flame resistant.

C) meet the requirements prescribed in Part 43.

32. AMA078 AMA

If no scratches are visible after transparent plastic enclosure materials have been cleaned, their surfaces should be

A) polished with rubbing compound applied with a damp cloth.

B) buffed with a clean, soft, dry cloth.

C) covered with a thin coat of wax.

33. AMA078 AMA

When installing transparent plastic enclosures which are retained by bolts extending through the plastic material and self-locking nuts, the nuts should be

A) tightened to a firm fit, plus one full turn.

B) tightened to a firm fit, then backed off one full turn.

C) tightened to a firm fit.

34. AMA021 AMA

Which part(s) of a semi monocoque fuselage prevent(s) tension and compression from bending the fuselage?

A) The fuselage covering.

B) Longerons and stringers.

C) Bulkheads and skin.

35. AMA016 AMA

When straightening members made of 2024-T4, you should

A) straighten cold and reinforce.

B) straighten cold and anneal to remove stress.

C) apply heat to the inside of the bend.

36. AMA016 AMA

Aircraft structural units, such as spars, engine supports, etc., which have been built up from sheet metal, are normally

A) repairable, using approved methods.

B) repairable, except when subjected to compressive loads.

C) not repairable, but must be replaced when damaged or deteriorated.

37. AMA029 AMA

What should be the included angle of a twist drill for soft metals?

A) 118°.

B) 90°.

C) 65°.

38. AMA016 AMA

Shallow scratches in sheet metal may be repaired by

A) burnishing.

B) buffing.

C) stop drilling.

39. AMA094 AMA

A single lap sheet splice is to be used to repair a section of damaged aluminum skin. If a double row of 1/8-inch rivets is used, the minimum allowable overlap will be

A) 1/2 inch.

B) 3/4 inch.

C) 13/16 inch.

40. AMA058 AMA

A category of plastic material that is capable of softening or flowing when reheated is described as a

A) thermoplastic.

B) thermocure.

C) thermoset.

41. AMA037 AMA

The strength and stiffness of a properly constructed composite buildup depends primarily on

A) a 60 percent matrix to 40 percent fiber ratio.

B) the orientation of the plies to the load direction.

C) the ability of the fibers to transfer stress to the matrix.

42. AMA037 AMA

Sandwich panels made of metal honeycomb construction are used on modern aircraft because this type of construction

A) is lighter than single sheet skin of the same strength and is more corrosion resistant.

B) may be repaired by gluing replacement skin to the inner core material with thermoplastic resin.

C) has a high strength to weight ratio.

43. AMA037 AMA

What is the material layer used within the vacuum bag pressure system to absorb excess resin during curing called?

A) Bleeder.

B) Breather.

C) Release.

44. AMA037 AMA

Which of the following are generally characteristic of carbon/graphite fiber composites?

1. Flexibility.

2. Stiffness.

3. High compressive strength.

4. Corrosive effect in contact with aluminum.

5. Ability to conduct electricity.

A) 1 and 3.

B) 2, 3, and 4.

C) 1, 3, and 5.

45. AMA037 AMA

A potted compound repair on honeycomb can usually be made on damages less than

A) 4 inches in diameter.

B) 2 inches in diameter.

C) 1 inch in diameter.

46. AMA037 AMA

Proper pre-preg composite lay-up curing is generally accomplished by

1. applying external heat.

2. room temperature exposure.

3. adding a catalyst or curing agent to the resin.

4. applying pressure.

A) 2 and 3.

B) 1 and 4.

C) 1, 3, and 4.

47. AMA037 AMA

When repairing puncture type damage of a metal faced laminated honeycomb panel, the edges of the doubler should be tapered to

A) two times the thickness of the metal.

B) 100 times the thickness of the metal.

C) whatever is desired for a neat, clean appearance.

48. AMA078 AMA

What is the most common method of cementing transparent plastics?

A) Heat method.

B) Soak method.

C) Bevel method.

49. AMA045 AMA

When making repairs to fiberglass, cleaning of the area to be repaired is essential for a good bond. The final cleaning should be made using

A) MEK (methyl ethyl ketone).

B) soap, water, and a scrub brush.

C) a thixotropic agent.

50. AMA045 AMA

Fiberglass laminate damage not exceeding the first layer or ply can be repaired by

A) filling with a putty consisting of a compatible resin and clean, short glass fibers.

B) sanding the damaged area until aerodynamic smoothness is obtained.

C) trimming the rough edges and sealing with paint.

51. AMA037 AMA

Fiberglass laminate damage that extends completely through one facing and into the core

A) cannot be repaired.

B) requires the replacement of the damaged core and facing.

C) can be repaired by using a typical metal facing patch.

52. AMA037 AMA

Which of the following, when added to wet resins, provide strength for the repair of damaged fastener holes in composite panels?

1. Microballoons.

2. Flox.

3. Chopped fibers.

A) 2 and 3.

B) 1 and 3.

C) 1, 2, and 3.

53. AMA037 AMA

Which of these methods may be used to inspect fiberglass/honeycomb structures for entrapped water?

1. Acoustic emission monitoring.

2. X-ray.

3. Backlighting.

A) 1 and 2.

B) 1 and 3.

C) 2 and 3.

54. AMA017 AMA

Which rivets should be selected to join two sheets of .032-inch aluminum?

A) MS20425D-4-3.

B) MS20470AD-4-4.

C) MS20455DD-5-3.

55. AMA017 AMA

Which of the following need not be considered when determining minimum rivet spacing?

A) Rivet diameter.

B) Rivet length.

C) Type of material being riveted.

56. AMA029 AMA

Which procedure is correct when using a reamer to finish a drilled hole to the correct size?

A) Turn the reamer in the cutting direction when enlarging the hole and in the opposite direction to remove from the hole.

B) Turn the reamer only in the cutting direction.

C) Apply considerable pressure on the reamer when starting the cut and reduce the pressure when finishing the cut.

57. AMA016 AMA

A sheet metal repair is to be made using two pieces of 0.0625-inch aluminum riveted together. All rivet holes are drilled for 1/8-inch rivets. The length of the rivets to be used will be

A) 5/32 inch.

B) 3/16 inch.

C) 5/16 inch.

58. AMA016 AMA

Rivet pitch is the distance between the

A) centers of rivets in adjacent rows.

B) centers of adjacent rivets in the same row.

C) heads of rivets in the same row.

59. AMA020 AMA

(Refer to Airframe figure 1.) Which of the rivets shown will accurately fit the conical depression made by a 100° countersink?

A) 1.

B) 2.

C) 3.

60. AMA017 AMA

The length of rivet to be chosen when making a structural repair that involves the joining of 0.032-inch and 0.064-inch aluminum sheet, drilled with a No. 30 drill, is

A) 7/16 inch.

B) 5/16 inch.

C) 1/4 inch.

61. AMA094 AMA

What is the minimum edge distance for aircraft rivets?

A) Two times the diameter of the rivet shank.

B) Two times the diameter of the rivet head.

C) Three times the diameter of the rivet shank.

62. AMA016 AMA

What is the minimum spacing for a single row of aircraft rivets?

A) Two times the diameter of the rivet shank.

B) Three times the length of the rivet shank.

C) Three times the diameter of the rivet shank.

63. AMA017 AMA

Under certain conditions, type A rivets are not used because of their

A) low strength characteristics.

B) high alloy content.

C) tendency toward embrittlement when subjected to vibration.

64. AMA017 AMA

The dimensions of an MS20430AD-4-8 rivet are

A) 1/8 inch in diameter and 1/4 inch long.

B) 1/8 inch in diameter and 1/2 inch long.

C) 4/16 inch in diameter and 8/32 inch long.

65. AMA016 AMA

(Refer to Airframe figure 2.) Select the preferred drawing for proper countersinking.

A) All are acceptable.

B) 2.

C) 1.

66. AMA017 AMA

A sheet metal repair is to be made using two pieces of 0.040-inch aluminum riveted together. All rivet holes are drilled for 3/32-inch rivets. The length of the rivets to be used will be

A) 1/8 inch.

B) 1/4 inch.

C) 5/16 inch.

67. AMA017 AMA

MS20426AD-6-5 indicates a countersunk rivet which has

A) a shank length of 5/16 inch (excluding head).

B) a shank length of 5/32 inch (excluding head).

C) an overall length of 5/16 inch.

68. AMA017 AMA

Heat treated rivets in the D and DD series that are not driven within the prescribed time after heat treatment or removal from refrigeration

A) must be reheat treated before use.

B) must be discarded.

C) may be returned to refrigeration and used later without reheat treatment.

69. AMA017 AMA

A factor which determines the minimum space between rivets is the

A) length of the rivets being used.

B) diameter of the rivets being used.

C) thickness of the material being riveted.

70. AMA020 AMA

Which rivet is used for riveting nickel steel alloys?

A) 2024 aluminum.

B) Mild steel.

C) Monel.

71. AMA017 AMA

A DD rivet is heat treated before use to

A) harden and increase strength.

B) relieve internal stresses.

C) soften to facilitate riveting.

72. AMA017 AMA

The length of a rivet to be used to join a sheet of .032-inch and .064-inch aluminum alloy should be equal to

A) two times the rivet diameter plus .064 inch.

B) one and one half times the rivet diameter plus .096 inch.

C) three times the rivet diameter plus .096 inch.

73. AMA016 AMA

Joggles in removed rivet shanks would indicate partial

A) bearing failure.

B) torsion failure.

C) shear failure.

74. AMA011 AMA

A main difference between Lockbolt/ Huckbolt tension and shear fasteners (other than their application) is in the

A) number of locking collar grooves.

B) shape of the head.

C) method of installation.

75. AMA011 AMA

One of the main advantages of Hi-Lok type fasteners over earlier generations is that

A) they can be removed and reused again.

B) the squeezed on collar installation provides a more secure, tighter fit.

C) they can be installed with ordinary hand tools.

76. AMA011 AMA

The Dzus turnlock fastener consists of a stud, grommet, and receptacle. The stud diameter is measured in

A) tenths of an inch.

B) hundredths of an inch.

C) sixteenths of an inch.

77. AMA017 AMA

Hole filling fasteners (for example, MS20470 rivets) should not be used in composite structures primarily because of the

A) possibility of causing delamination.

B) increased possibility of fretting corrosion in the fastener.

C) difficulty in forming a proper shop head.

78. AMA011 AMA

The Dzus turnlock fastener consists of a stud, grommet, and receptacle. The stud length is measured in

A) hundredths of an inch.

B) tenths of an inch.

C) sixteenths of an inch.

79. AMA017 AMA

The general rule for finding the proper rivet diameter is

A) three times the thickness of the materials to be joined.

B) two times the rivet length.

C) three times the thickness of the thickest sheet.

80. AMA094 AMA

What method of repair is recommended for a steel tube longeron dented at a cluster?

A) Welded split sleeve.

B) Welded outer sleeve.

C) Welded patch plate.

81. AMA101 AMA

The oxyacetylene flame for silver soldering should be

A) oxidizing.

B) neutral.

C) carburizing.

82. AMA101 AMA

Why should a carburizing flame be avoided when welding steel?

A) It removes the carbon content.

B) It hardens the surface.

C) A cold weld will result.

83. AMA101 AMA

The oxyacetylene flame used for aluminum welding should

A) be neutral and soft.

B) be slightly oxidizing.

C) contain an excess of acetylene and leave the tip at a relatively low speed.

84. AMA101 AMA

A resurfaced soldering iron cannot be used effectively until after the working face has been

A) fluxed.

B) polished.

C) tinned.

85. AMA101 AMA

Welding over brazed or soldered joints is

A) not permitted.

B) permissible for mild steel.

C) permissible for most metals or alloys that are not heat treated.

86. AMA101 AMA

Oxygen and acetylene cylinders are made of

A) seamless aluminum.

B) steel.

C) bronze.

87. AMA058 AMA

Annealing of aluminum

A) increases the tensile strength.

B) makes the material brittle.

C) removes stresses caused by forming.

88. AMA101 AMA

Edge notching is generally recommended in butt welding above a certain thickness of aluminum because it

A) helps hold the metal in alignment during welding.

B) aids in the removal or penetration of oxides on the metal surface.

C) aids in getting full penetration of the metal and prevents local distortion.

89. AMA101 AMA

Where should the flux be applied when oxyacetylene welding aluminum?

A) Painted only on the surface to be welded.

B) Painted on the surface to be welded and applied to the welding rod.

C) Applied only to the welding rod.

90. AMA101 AMA

Why are aluminum plates 1/4 inch or more thick usually preheated before welding?

A) Reduces internal stresses and assures more complete penetration.

B) Reduces welding time.

C) Prevents corrosion and ensures proper distribution of flux.

91. AMA101 AMA

Oxides form very rapidly when alloys or metals are hot. It is important, therefore, when welding aluminum to use a

A) solvent.

B) filler.

C) flux.

92. AMA101 AMA

When a butt welded joint is visually inspected for penetration,

A) the penetration should be 25 to 50 percent of the thickness of the base metal.

B) the penetration should be 100 percent of the thickness of the base metal.

C) look for evidence of excessive heat in the form of a very high bead.

93. AMA101 AMA

Which statement best describes magnesium welding?

A) Magnesium can be welded to other metals.

B) Filler rod should be nickel steel.

C) Filler rod should be the same composition as base metal.

94. AMA038 AMA

What nondestructive checking method is normally used to ensure that the correct amount of swaging has taken place when installing swaged-type terminals on aircraft control cable?

A) Measure the finished length of the terminal barrel and compare with the beginning length.

B) Use a terminal gauge to check the diameter of the swaged portion of the terminal.

C) Check the surface of the swaged portion of the terminal for small cracks which indicate incomplete swaging.

95. AMA038 AMA

If all instructions issued by the swaging tool manufacturer are followed when swaging a cable terminal, the resultant swaged terminal strength should be

A) the full rated strength of the cable.

B) 80 percent of the full rated strength of the cable.

C) 70 percent of the full rated strength of the cable.

96. AMA001 AMA

The purpose of the vertical fin is to provide

A) directional stability.

B) longitudinal stability.

C) lateral stability.

97. AMA011 AMA

When used in close proximity to magnetic compasses, cotter pins are made of what material?

A) Corrosion resisting steel.

B) Anodized aluminum alloy.

C) Cadmium plated low carbon steel.

98. AMA081 AMA

Very often, repairs to a control surface require static rebalancing of the control surface. Generally, flight control balance condition may be determined by

A) checking for equal distribution of weight throughout the control surface.

B) the behavior of the trailing edge when the surface is suspended from its hinge points.

C) suspending the control surface from its leading edge in the streamline position and checking weight distribution.

99. AMA001 AMA

Stability about the axis which runs parallel to the line of flight is referred to as

A) longitudinal stability.

B) lateral stability.

C) directional stability.

100. AMA038 AMA

Fairleads should never deflect the alignment of a cable more than

A) 12°.

B) 8°.

C) 3°.

101. AMA081 AMA

If control cables are adjusted properly and the control surfaces tend to vibrate, the probable cause is

A) worn attachment fittings.

B) oil can effects on the control surfaces.

C) excessive cable tension.

102. AMA081 AMA

A tension regulator in the flight control cable system of a large all metal aircraft is used primarily to

A) increase the cable tension in cold weather.

B) provide a means of changing cable tension in flight.

C) retain a set tension.

103. AMA038 AMA

What is the smallest size cable that may be used in aircraft primary control systems?

A) 1/4 inch.

B) 5/16 inch.

C) 1/8 inch.

104. AMA082 AMA

During inspection of the flight control system of an airplane equipped with differential-type aileron control, side to side movement of the control stick will cause

A) each aileron to have a greater up travel (from the streamlined position) than down travel.

B) each aileron to have greater down travel (from the streamlined position) than up travel.

C) the left aileron to move through a greater number of degrees (from full up to full down) than the right aileron.

105. AMA082 AMA

If the control stick of an aircraft with properly rigged flight controls is moved forward and to the right, the left aileron will move

A) up and the elevator will move down.

B) down and the elevator will move up.

C) down and the elevator will move down.

106. AMA093 AMA

Movement of the cockpit control toward the nosedown position during a ground operational check of the elevator trim tab system will cause the trailing edge of the trim tab to move in which direction?

A) Downward regardless of elevator position.

B) Upward regardless of elevator position.

C) Downward if the elevator is in the UP position and upward if the elevator is in the DOWN position.

107. AMA081 AMA

The universal propeller protractor can be used to measure

A) propeller track.

B) aspect ratio of a wing.

C) degrees of flap travel.

108. AMA081 AMA

Differential control on an aileron system means that

A) the down travel is more than the up travel.

B) the up travel is more than the down travel.

C) one aileron on one wing travels further up than the aileron on the opposite wing to adjust for wash in and wash out.

109. AMA082 AMA

If the control stick of an aircraft with properly rigged flight controls is moved rearward and to the left, the right aileron will move

A) down and the elevator will move down.

B) up and the elevator will move down.

C) down and the elevator will move up.

110. AMA081 AMA

With which system is differential control associated?

A) Trim.

B) Aileron.

C) Elevator.

111. AMA081 AMA

The correct dihedral angle can be determined by

A) measuring the angular setting of each wing at the rear spar with a bubble protractor.

B) placing a straightedge and bubble protractor across the spars while the airplane is in flying position.

C) using a dihedral board and bubble level along the front spar of each wing.

112. AMA081 AMA

Where would you find precise information to perform a symmetry alignment check for a particular aircraft?

A) Aircraft Specification or Type Certificate Data Sheet.

B) Manufacturer's service bulletins.

C) Aircraft service or maintenance manual.

113. AMA059 AMA

Where is fuselage station No. 137 located?

A) 137 centimeters aft of the nose or fixed reference line.

B) 137 inches aft of the zero or fixed reference line.

C) Aft of the engine.

114. AMA100 AMA

Why is it generally necessary to jack an aircraft indoors for weighing?

A) So aircraft may be placed in a level position.

B) So that air currents do not destabilize the scales.

C) So weighing scales may be calibrated to 0 pounds.

115. AMA001 AMA

As the angle of attack of an airfoil increases, the center of pressure will

A) move toward the trailing edge.

B) remain stationary because both lift and drag components increase proportionally to increased angle of attack.

C) move toward the leading edge.

116. AMA050 AMA

An airplane which has good longitudinal stability should have a minimum tendency to

A) roll.

B) pitch.

C) yaw.

117. AMA100 AMA

An airplane's center of lift is usually located aft of its center of gravity

A) so that the airplane will have a tail heavy tendency.

B) so that the airplane will have a nose heavy tendency.

C) to improve stability about the longitudinal axis.

118. AMA050 AMA

An airplane that has a tendency to gradually increase a pitching moment that has been set into motion has

A) poor longitudinal stability.

B) good lateral stability.

C) poor lateral stability.

119. AMA001 AMA

The angle of incidence of an airplane at rest

A) affects the dihedral of the wings in flight.

B) is the same as the angle between the relative wind and the chord of the wing.

C) does not change when in flight.

120. AMA001 AMA

Movement of an airplane along its lateral axis (roll) is also movement

A) around or about the longitudinal axis controlled by the elevator.

B) around or about the lateral axis controlled by the ailerons.

C) around or about the longitudinal axis controlled by the ailerons.

121. AMA001 AMA

The primary purpose of stall strips is to

A) provide added lift at slow speeds.

B) stall the inboard portion of the wings first.

C) provide added lift at high angles of attack.

122. AMA001 AMA

The chord of a wing is measured from

A) wingtip to wingtip.

B) wing root to the wingtip.

C) leading edge to trailing edge.

123. AMA001 AMA

What physical factors are involved in the aspect ratio of airplane wings?

A) Thickness and chord.

B) Span and chord.

C) Dihedral and angle of attack.

124. AMA093 AMA

If the vertical fin of a single engine, propeller driven airplane is rigged properly, it will generally be parallel to

A) the longitudinal axis but not the vertical axis.

B) the vertical axis but not the longitudinal axis.

C) both the longitudinal and vertical axes.

125. AMA081 AMA

Rigging and alignment checks should not be undertaken in the open; however, if this cannot be avoided, the aircraft should be positioned

A) obliquely into the wind.

B) facing any direction since it makes no difference if the wind is steady (not gusting).

C) with the nose into the wind.

126. AMA091 AMA

What is the purpose of the free wheeling unit in a helicopter drive system?

A) It disconnects the rotor whenever the engine stops or slows below the equivalent of rotor RPM.

B) It releases the rotor brake for starting.

C) It relieves bending stress on the rotor blades during starting.

127. AMA091 AMA

Which statement is correct concerning torque effect on helicopters?

A) Torque direction is the same as rotor blade rotation.

B) As horsepower decreases, torque increases.

C) Torque direction is the opposite of rotor blade rotation.

128. AMA091 AMA

One purpose of the freewheeling unit required between the engine and the helicopter transmission is to

A) automatically disengage the rotor from the engine in case of an engine failure.

B) disconnect the rotor from the engine to relieve the starter load.

C) permit practice of autorotation landings.

129. AMA091 AMA

If a single rotor helicopter is in forward horizontal flight, the angle of attack of the advancing blade is

A) more than the retreating blade.

B) equal to the retreating blade.

C) less than the retreating blade.

130. AMA091 AMA

A helicopter in forward flight, cruise configuration, changes direction by

A) varying the pitch of the main rotor blades.

B) changing rotor RPM.

C) tilting the main rotor disk in the desired direction.

131. AMA091 AMA

The auxiliary (tail) rotor of a helicopter permits the pilot to compensate for and/or accomplish which of the following?

A) Attitude and airspeed.

B) Lateral and yaw position.

C) Torque and directional control.

132. AMA088 AMA

Which statement is correct regarding an aircraft that is found to be unairworthy after an annual inspection, due to an item requiring a major repair (assuming approved data is used to accomplish the repair)?

A) An appropriately rated mechanic may accomplish the repair, and an IA may approve the aircraft for return to service.

B) An appropriately rated mechanic or repair station may repair the defect and approve the aircraft for return to service.

C) Only the person who performed the annual inspection may approve the aircraft for return to service, after the major repair.

133. AMA019 AMA

Large airplanes and turbine-powered multiengine airplanes operated under Federal Aviation Regulation Part 91, General Operating and Flight Rules, must be inspected

A) in accordance with an inspection program authorized under Federal Aviation Regulation Part 91, Subpart E.

B) in accordance with a continuous airworthiness maintenance program (camp program) authorized under Federal Aviation Regulation Part 91, Subpart E.

C) in accordance with the progressive inspection requirements of Federal Aviation Regulation Section 91.409(d).

134. AMA088 AMA

Which statement about Airworthiness Directives (AD's) is true?

A) AD's are information alert bulletins issued by the airframe, powerplant, or component manufacturer.

B) Compliance with an AD is not mandatory unless the aircraft affected is for hire.

C) Compliance with an applicable AD is mandatory and must be recorded in the maintenance records.

135. AMA065 AMA

How can it be determined that all air has been purged from a master cylinder brake system?

A) By operating a hydraulic unit and watching the system pressure gauge for smooth, full scale deflection.

B) By noting whether the brake is firm or spongy.

C) By noting the amount of fluid return to the master cylinder upon brake release.

136. AMA031 AMA

What is one effect a restricted compensator port of a master cylinder will have on a brake system?

A) The brakes will operate normally.

B) The reservoir will be filled by reverse flow.

C) The restriction will cause slow release of the brakes.

137. AMA063 AMA

What would be the effect if the piston return spring broke in a brake master cylinder?

A) The brakes would become spongy.

B) The brake travel would become excessive.

C) The brakes would drag.

138. AMA032 AMA

A pilot reports the right brake on an aircraft is spongy when the brake pedal is depressed in a normal manner. The probable cause is

A) the hydraulic master cylinder piston is sticking.

B) air in the brake hydraulic system.

C) the hydraulic master cylinder piston return spring is weak.

139. AMA031 AMA

Many brake types can be adapted to operate mechanically or hydraulically. Which type is not adaptable to mechanical operation?

A) Single disk spot type.

B) Single servo type.

C) Expander tube type.

140. AMA031 AMA

The purpose of an orifice check valve is to

A) relieve pressure to a sensitive component.

B) restrict flow in one direction and allow free flow in the other.

C) relieve pressure in one direction and prevent flow in the other direction.

141. AMA029 AMA

A special bolt in a landing gear attachment requires a torque value of 440 inch-pounds. How many foot-pounds are required?

A) 36.8.

B) 38.

C) 36.6.

142. AMA063 AMA

An O ring intended for use in a hydraulic system using MIL-H-5606 (mineral base) fluid will be marked with

A) a blue stripe or dot.

B) one or more white dots.

C) a white and yellow stripe.

143. AMA063 AMA

What device in a hydraulic system with a constant delivery pump allows circulation of the fluid when no demands are on the system?

A) Pressure relief valve.

B) Shuttle valve.

C) Pressure regulator.

144. AMA031 AMA

Lockout deboosters are primarily pressure reducing valves that

A) allow full debooster piston travel without fluid from the high pressure side entering the low pressure chamber.

B) cannot allow full debooster piston travel without fluid from the high pressure side entering the low pressure chamber.

C) must be bled separately after brake bleeding has been completed.

145. AMA068 AMA

An electric motor used to raise and lower a landing gear would most likely be a

A) shunt field series wound motor.

B) split field shunt wound motor.

C) split field series wound motor.

146. AMA068 AMA

A landing gear position and warning system will provide a warning in the cockpit when the throttle is

A) retarded and gear is not down and locked.

B) advanced and gear is down and locked.

C) retarded and gear is down and locked.

147. AMA068 AMA

What should be checked when a shock strut bottoms during a landing?

A) Air pressure.

B) Packing seals for correct installation.

C) Fluid level.

148. AMA068 AMA

What is the function of a cam incorporated in a nose gear shock strut?

A) Provides an internal shimmy damper.

B) Straightens the nosewheel.

C) Provides steering of aircraft during ground operation.

149. AMA063 AMA

The purpose of a sequence valve in a hydraulic retractable landing gear system is to

A) prevent heavy landing gear from falling too rapidly upon extension.

B) provide a means of disconnecting the normal source of hydraulic power and connecting the emergency source of power.

C) ensure operation of the landing gear and gear doors in the proper order.

150. AMA031 AMA

Debooster cylinders are used in brake systems primarily to

A) reduce brake pressure and maintain static pressure.

B) relieve excessive fluid and ensure a positive release.

C) reduce the pressure to the brake and increase the volume of fluid flow.

151. AMA068 AMA

The repair for an out of tolerance toe in condition of main landing gear wheels determined not to be the result of bent or twisted components consists of

A) shimming the axle in the oleo trunnion.

B) inserting, removing, or changing the location of washers or spacers at the center pivotal point of the scissor torque links.

C) placing shims or spacers behind the bearing of the out of tolerance wheel or wheels.

152. AMA097 AMA

Aircraft tire pressure should be checked

A) using only a push on stick-type gauge having 1-pound increments.

B) at least once a week or more often.

C) as soon as possible after each flight.

153. AMA097 AMA

Overinflated aircraft tires may cause damage to the

A) brake linings.

B) wheel hub.

C) wheel flange.

154. AMA031 AMA

The purpose of a relief valve in a brake system is to

A) reduce pressure for brake application.

B) prevent the tire from skidding.
C) compensate for thermal expansion.

155. AMA097 AMA
The fusible plugs installed in some aircraft wheels will
A) indicate tire tread separation.
B) prevent overinflation.
C) melt at a specified elevated temperature.

156. AMA031 AMA
Debooster valves are used in brake systems primarily to
A) ensure rapid application and release of the brakes.
B) reduce brake pressure and maintain static pressure.
C) reduce the pressure and release the brakes rapidly.

157. AMA097 AMA
The primary purpose for balancing aircraft wheel assemblies is to
A) prevent heavy spots and reduce vibration.
B) distribute the aircraft weight properly.
C) reduce excessive wear and turbulence.

158. AMA063 AMA
The pressure source for power brakes is
A) the main hydraulic system.
B) the power brake reservoir.
C) a master cylinder.

159. AMA031 AMA
Internal leakage in a brake master cylinder unit can cause
A) slow release of brakes.
B) the pedal to slowly creep down while pedal pressure is applied.
C) fading brakes.

160. AMA031 AMA
Which statement is true with respect to an aircraft equipped with hydraulically operated multiple disk type brake assemblies?
A) There are no minimum or maximum disk clearance checks required due to the use of self compensating cylinder assemblies.

B) Do not set parking brake when brakes are hot.

C) No parking brake provisions are possible for this type of brake assembly.

161. AMA068 AMA

When an empty shock strut is filled with fluid, care should be taken to extend and compress the strut completely at least two times to

A) thoroughly lubricate the piston rod.

B) force out any excess fluid.

C) ensure proper packing ring seating and removal of air bubbles.

162. AMA032 AMA

In brake service work, the term 'bleeding brakes' is the process of

A) withdrawing air only from the system.

B) withdrawing fluid from the system for the purpose of removing air that has entered the system.

C) replacing small amounts of fluid in reservoir.

163. AMA068 AMA

When servicing an air/oil shock strut with MIL-5606 the strut should be

A) collapsed and fluid added at the filler opening.

B) fully extended and fluid added at the filler opening.

C) partially extended and fluid added at the filler opening.

164. AMA068 AMA

In shock struts, chevron seals are used to

A) absorb bottoming effect.

B) prevent oil from escaping.

C) serve as a bearing surface.

165. AMA068 AMA

The metering pins in oleo shock struts serve to

A) lock the struts in the DOWN position.

B) retard the flow of oil as the struts are compressed.

C) meter the proper amount of air in the struts.

166. AMA097 AMA

How long should you wait after a flight before checking tire pressure?

A) At least 2 hours (3 hours in hot weather).

B) At least 3 hours (4 hours in hot weather).

C) At least 4 hours (5 hours in hot weather).

167. AMA097 AMA

Excessive wear in the center of the tread of an aircraft tire is an indication of

A) incorrect camber.

B) excessive toe out.

C) overinflation.

168. AMA097 AMA

Why do tire and wheel manufacturers often recommend that the tires on split rim wheels be deflated before removing the wheel from the axle?

A) To relieve the strain on the wheel retaining nut and axle threads.

B) As a safety precaution in case the bolts that hold the wheel halves together have been damaged or weakened.

C) To remove the static load imposed upon the wheel bearings by the inflated tire.

169. AMA097 AMA

Exposure to and/or storage near which of the following is considered harmful to aircraft tires?

1. Low humidity.
2. Fuel.
3. Oil.
4. Ozone.
5. Helium.
6. Electrical equipment.
7. Hydraulic fluid.
8. Solvents.

A) 2, 3, 4, 5, 6, 7, 8.

B) 1, 2, 3, 5, 7, 8.

C) 2, 3, 4, 6, 7, 8.

170. AMA064 AMA

Two types of hydraulic fluids currently being used in civil aircraft are

A) mineral base, and phosphate ester base.

B) mixed mineral base and phosphate ester base.

C) petroleum base and mixed mineral base.

171. AMA064 AMA

(1) Materials which are Skydrol compatible or resistant include most common aircraft metals and polyurethane and epoxy paints.

(2) Skydrol hydraulic fluid is compatible with nylon and natural fibers.

Regarding the above statements,

A) neither No. 1 nor No. 2 is true.

B) both No. 1 and No. 2 are true.

C) only No. 1 is true.

172. AMA064 AMA

How can the proper hydraulic fluid to be used in an airplane be determined?

A) Refer to the aircraft parts manual.

B) Consult the aircraft Type Certificate Data Sheet.

C) Consult the aircraft manufacturer's service manual.

173. AMA064 AMA

The internal resistance of a fluid which tends to prevent it from flowing is called

A) volatility.

B) viscosity.

C) acidity.

174. AMA064 AMA

Which of the following is adversely affected by atmospheric humidity if left unprotected?

1. MIL-H-5606 hydraulic fluid.

2. Skydrol hydraulic fluid.

3. None of the above.

A) 1 and 2.

B) 3.

C) 2.

175. AMA064 AMA

Where can information be obtained about the compatibility of fire resistant hydraulic fluid with aircraft materials?

A) Fluid manufacturer`s technical bulletins.

B) Aircraft manufacturer`s specifications.

C) AC 43.13-1A.

176. AMA063 AMA

The unit which causes one hydraulic operation to follow another in a definite order is called a

A) selector valve.

B) sequence valve.

C) shuttle valve.

177. AMA063 AMA

Some hydraulic systems incorporate a device which is designed to remain open to allow a normal fluid flow in the line, but closed if the fluid flow increases above an established rate. This device is generally referred to as a

A) hydraulic fuse.

B) flow regulator.

C) metering check valve.

178. AMA063 AMA

The primary function of the flap overload valve is to

A) prevent the flaps from being lowered at airspeeds which would impose excessive structural loads.

B) cause the flap segments located on opposite sides of the aircraft centerline to extend and retract together so that the aircraft will not become aerodynamically unbalanced to the extent that it becomes uncontrollable.

C) boost normal system pressure to the flaps in order to overcome the air loads acting on the relatively large flap area.

179. AMA065 AMA

Unloading valves are used with many engine driven hydraulic pumps to

A) dampen out pressure surges.

B) relieve the pump pressure.

C) relieve system pressure.

180. AMA063 AMA

Heat exchanger cooling units are required in some aircraft hydraulic systems because of

A) fluid flammability.

B) high pressures and high rates of fluid flow.

C) the high heat generated from braking.

181. AMA065 AMA

If hydraulic fluid is released when the air valve core of the accumulator is depressed, it is evidence of

A) excessive accumulator air pressure.

B) a leaking check valve.

C) a ruptured diaphragm or leaking seals.

182. AMA063 AMA

Hydraulic system thermal relief valves are set to open at a

A) lower pressure than the system relief valve.

B) higher pressure than the system relief valve.

C) lower pressure than the system pressure regulator.

183. AMA065 AMA

What is the main purpose of a pressurized reservoir in a hydraulic system?

A) Prevent tank collapse at altitude.

B) Prevent hydraulic pump cavitation.

C) Prevent hydraulic fluid from foaming.

184. AMA063 AMA

Hydraulic system accumulators serve which of the following functions?

1. Dampen pressure surges.

2. Supplement the system pump when demand is beyond the pump's capacity.

3. Store power for limited operation of components if the pump is not operating.

4. Ensure a continuous supply of fluid to the pump.

A) 2, 3.

B) 1, 2, 3, 4.

C) 1, 2, 3.

185. AMA063 AMA

Quick disconnect couplings in hydraulic systems provide a means of

A) easily replacing hydraulic lines in areas where leaks are common.

B) quickly connecting and disconnecting hydraulic lines and eliminate the possibility of contaminates entering the system.

C) quickly connecting and disconnecting hydraulic lines without loss of fluid or entrance of air into the system.

186. AMA065 AMA

A hydraulic pump is a constant-displacement type if it

A) produces an unregulated constant pressure.

B) produces a continuous positive pressure.

C) delivers a uniform rate of fluid flow.

187. AMA063 AMA

In a hydraulic system that has a reservoir pressurized with turbine engine compressor bleed air, which unit reduces the air pressure between the engine and reservoir?

A) Relief valve.

B) Air bleed relief valve.

C) Air pressure regulator.

188. AMA003 AMA

Teflon hose that has developed a permanent set from being exposed to high pressure or temperature should

A) not be straightened or bent further.

B) not be reinstalled once removed.

C) be immediately replaced.

189. AMA063 AMA

A hydraulic motor converts fluid pressure to

A) linear motion.

B) rotary motion.

C) angular motion.

190. AMA063 AMA

What is one advantage of piston type hydraulic motors over electric motors?

A) They are considerably quieter in operation.

B) There is no fire hazard if the motor is stalled.

C) They work satisfactorily over a wider temperature range.

191. AMA063 AMA

Which characteristics apply to aircraft hydraulic systems?

1. Minimum maintenance requirements.

2. Lightweight.

3. About 80 percent operating efficiency (20 percent loss due to fluid friction).

4. Simple to inspect.

A) 1, 2, 3, 4.

B) 1, 3, 4.

C) 1, 2, 4.

192. AMA063 AMA

The purpose of the pressure regulator in a hydraulic system is to

A) maintain system operating pressure within a predetermined range and to unload the pump.

B) regulate the amount of fluid flow to the actuating cylinders within the system.

C) prevent failure of components or rupture of hydraulic lines under excessive pressure.

193. AMA063 AMA

What type of selector valve is one of the most commonly used in hydraulic systems to provide for simultaneous flow of fluid into and out of a connected actuating unit?

A) Four port, closed center valve.

B) Three port, four way valve.

C) Two port, open center valve.

194. AMA079 AMA

Pneumatic systems utilize

A) return lines.

B) relief valves.

C) diluter valves.

195. AMA079 AMA

An aircraft pneumatic system, which incorporates an engine driven multistage reciprocating compressor, also requires

A) an oil separator.

B) a surge chamber.

C) a moisture separator.

196. AMA063 AMA

Select the valve used in a hydraulic system that directs pressurized fluid to one end of an actuating cylinder and simultaneously directs return fluid to the reservoir from the other end.

A) Sequence.

B) Shuttle.

C) Selector.

197. AMA063 AMA

The component in the hydraulic system that is used to direct the flow of fluid is the

A) check valve.

B) orifice check valve.

C) selector valve.

198. AMA011 AMA

(Refer to Airframe figure 11.) Which fitting is an AN flared tube fitting?

A) 1.

B) 2.

C) 3.

199. AMA065 AMA

Although dents in the heel of a bend are not permissible, they are acceptable in the remainder of a hydraulic tube providing they are less than what percent of the tube diameter?

A) 5.

B) 10.

C) 20.

200. AMA063 AMA

The installation of a new metal hydraulic line should be made with

A) a straight tube to withstand the shocks and vibration to which it will be subjected.

B) a straight tube to permit proper alignment of the fitting and thereby reduce fluid loss through leakage.

C) enough bends to allow the tube to expand and contract with temperature changes and to absorb vibration.

201. AMA065 AMA

After a hydraulic accumulator has been installed and air chamber charged, the main system hydraulic pressure gauge will not show a hydraulic pressure reading until

A) at least one selector valve has been actuated to allow fluid to flow into the fluid side of the accumulator.

B) the air pressure has become equal to the fluid pressure.

C) the fluid side of the accumulator has been charged.

202. AMA063 AMA

Which seals are used with petroleum base hydraulic fluids?

A) Polyester.

B) Butyl rubber.

C) Buna-N.

203. AMA063 AMA

After installation of a rebuilt hydraulic hand pump, it is found that the handle cannot be moved in the pumping direction (pressure stroke). The most likely cause is an incorrectly installed

A) hand pump inport check valve.

B) inport/outport orifice check valve.

C) hand pump outport check valve.

204. AMA065 AMA

Hydraulic fluid filtering elements constructed of porous paper are normally

A) cleaned and reused.

B) discarded at regular intervals and replaced with new filtering elements.

C) not approved for use in certificated aircraft.

205. AMA065 AMA

To prevent external and internal leakage in aircraft hydraulic units, the most commonly used type of seal is the

A) O ring seal.

B) gasket seal.

C) chevron seal.

206. AMA065 AMA

What is used to flush a system normally serviced with MIL-H-5606 hydraulic fluid?

A) Methyl ethyl ketone or kerosene.

B) Naphtha or varsol.

C) Lacquer thinner or trichlorethylene.

207. AMA065 AMA

Which must be done before adjusting the relief valve of a main hydraulic system incorporating a pressure regulator?

A) Eliminate the action of the unloading valve.

B) Adjust all other system relief valves which have a lower pressure setting.

C) Manually unseat all system check valves to allow unrestricted flow in both directions.

208. AMA063 AMA

Severe kickback of the emergency hydraulic hand pump handle during the normal intake stroke will indicate which of the following?

A) The hand pump inlet check valve is sticking open.

B) The main system relief valve is set too high.

C) The hand pump outlet check valve is sticking open.

209. AMA065 AMA

The main system pressure relief valve in a simple hydraulic system equipped with a power control valve should be adjusted

A) with the power control valve held in the CLOSED position.

B) while one or more actuating units are in operation.

C) with the power control valve in the OPEN position.

210. AMA063 AMA

How is the air in a hydraulic accumulator prevented from entering the fluid system?

A) By forcing the oil/air mixture through a centrifugal separating chamber that prevents the air from leaving the accumulator.

B) By physically separating the air chamber from the oil chamber with a flexible or movable separator.

C) By including a valve that automatically closes when the fluid level lowers to a preset amount.

211. AMA065 AMA

If it is necessary to adjust several pressure regulating valves in a hydraulic system, what particular sequence, if any, should be followed?

A) Units most distant from the hydraulic pump should be adjusted first.

B) Units with the highest pressure settings are adjusted first.

C) Units are independent of each other, and therefore, no particular sequence is necessary.

212. AMA065 AMA

Which is true regarding the ground check of a flap operating mechanism which has just been installed?

A) If the time required to operate the mechanism increases with successive operations, it indicates the air is being worked out of the system.

B) If the time required to operate the mechanism decreases with successive operations, it indicates the air is being worked out of the system.

C) All hydraulic lines and components should be checked for leaks by applying soapy water to all connections.

213. AMA065 AMA

A hydraulic system operational check during ground runup of an aircraft indicates that the wing flaps cannot be lowered using the main hydraulic system, but can be lowered by using the emergency hand pump. Which is the most likely cause?

A) The flap selector valve has a severe internal leak.

B) The pressure accumulator is not supplying pressure to the system.

C) The fluid level in the reservoir is low.

214. AMA063 AMA

If two actuating cylinders which have the same cross sectional area but different lengths of stroke are connected to the same source of hydraulic pressure, they will exert

A) different amounts of force but will move at the same rate of speed.

B) equal amounts of force but will move at different rates of speed.

C) equal amounts of force and will move at the same rate of speed.

215. AMA065 AMA

How would the air pressure charge in the accumulator be determined if the engine is inoperative, but the system still has hydraulic pressure?

A) Read it directly from the main system pressure gauge with all actuators inoperative.

B) Build up system pressure with the emergency pump and then read the pressure on a gauge attached to the air side of the accumulator.

C) Operate a hydraulic unit slowly and note the pressure at which a rapid pressure drop begins as it goes toward zero.

216. AMA063 AMA

A pilot reports that when the hydraulic pump is running, the pressure is normal. However, when the pump is stopped, no hydraulic pressure is available. This is an indication of a

A) leaking selector valve.

B) low accumulator fluid preload.

C) leaking accumulator air valve.

217. AMA065 AMA

What type of packings should be used in hydraulic components to be installed in a system containing Skydrol?

A) AN packings made of natural rubber.

B) Packing materials made for ester base fluids.

C) AN packings made of neoprene.

218. AMA064 AMA

(1) When servicing aircraft hydraulic systems, use the type fluid specified in the aircraft manufacturer's maintenance manual or on the instruction plate affixed to the reservoir or unit.

(2) Hydraulic fluids for aircraft are dyed a specific color for each type of fluid.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

219. AMA002 AMA

When Refrigerant 12 is passed over an open flame, it

A) changes to methane gas.

B) is broken down into its basic chemical elements.

C) changes to phosgene gas.

220. AMA005 AMA

What is the condition of the refrigerant as it leaves the condenser of a vapor cycle cooling system?

A) Low pressure liquid.

B) High pressure liquid.

C) High pressure vapor.

221. AMA005 AMA

What component might possibly be damaged if liquid refrigerant is introduced into the low side of a vapor cycle cooling system when the pressure is too high or the outside air temperature is too low?

A) Compressor.

B) Condenser.

C) Evaporator.

222. AMA080 AMA

The cabin pressure of an aircraft in flight is maintained at the selected altitude by

A) controlling the air inflow rate.

B) inflating door seals and recirculating conditioned cabin air.

C) controlling the rate at which air leaves the cabin.

223. AMA035 AMA

What is ventilating air used for on a combustion heater?

A) Provides combustion air for ground blower.

B) Carries heat to the places where needed.

C) Provides air required to support the flame.

224. AMA006 AMA

In an operating vapor cycle cooling system, if the two lines connected to the expansion valve are essentially the same temperature, what does this indicate?

A) The system is functioning normally.

B) The expansion valve is not metering freon properly.

C) The compressor is pumping too much refrigerant.

225. AMA006 AMA

The point at which freon flowing through a vapor cycle cooling system absorbs heat and changes from a liquid to a gas is the

A) condenser.

B) evaporator.

C) expansion valve.

226. AMA080 AMA

What component of a pressurization system prevents the cabin altitude from becoming higher than airplane altitude?

A) Cabin rate of descent control.

B) Negative pressure relief valve.

C) Positive pressure relief valve.

227. AMA006 AMA

The function of the evaporator in a freon cooling system is to

A) liquefy freon in the line between the compressor and the condenser.

B) lower the temperature of the cabin air.

C) transfer heat from the freon gas to ambient air.

228. AMA068 AMA

On some cabin pressurization systems, pressurization on the ground is restricted by the

A) cabin pressure regulator.

B) negative pressure-relief valve.

C) main landing gear operated switch.

229. AMA080 AMA

How is the cabin pressure of a pressurized aircraft usually controlled?

A) By a pressure sensitive switch that causes the pressurization pump to turn on or off as required.

B) By an automatic outflow valve that dumps all the pressure in excess of the amount for which it is set.

C) By a pressure sensitive valve that controls the output pressure of the pressurization pump.

230. AMA006 AMA

The point at which freon flowing through a vapor cycle cooling system gives up heat and changes from a gas to a liquid is the

A) condenser.

B) evaporator.

C) expansion valve.

231. AMA080 AMA

The altitude controller maintains cabin altitude by modulation of the

A) safety and outflow valves.

B) safety valve.

C) outflow valve.

232. AMA074 AMA

What type of oxygen system uses the rebreather bag-type mask?

A) Diluter demand.

B) Continuous flow.

C) Demand.

233. AMA080 AMA

A pressurization controller uses

A) bleed air pressure, outside air temperature, and cabin rate of climb.

B) barometric pressure, cabin altitude, and cabin rate of change.

C) cabin rate of climb, bleed air volume, and cabin pressure.

234. AMA080 AMA

Which best describes cabin differential pressure?

A) Difference between cabin flight altitude pressure and Mean Sea Level pressure.

B) Difference between the ambient and internal air pressure.

C) Difference between cabin pressure controller setting and actual cabin pressure.

235. AMA002 AMA

(Refer to Airframe figure 13.) Determine what unit is located immediately downstream of the expansion valve in a freon refrigeration system.

A) Condenser.

B) Compressor.

C) Evaporator coils.

236. AMA035 AMA

The operation of an aircraft combustion heater is usually controlled by a thermostat circuit which

A) alternately turns the fuel on and off, a process known as cycling.

B) meters the amount of fuel continuously entering the heater and therefore regulates the heater's BTU output.

C) regulates the voltage applied to the heater's ignition transformer.

237. AMA080 AMA

One purpose of a jet pump in a pressurization and air conditioning system is to

A) produce a high pressure for operation of the outflow valve.

B) provide for augmentation of airflow in some areas of the aircraft.

C) assist in the circulation of freon.

238. AMA006 AMA

The function of an expansion valve in a freon cooling system is to act as a metering device and to

A) reduce the pressure of the gaseous freon.

B) increase the pressure of the liquid freon.

C) reduce the pressure of the liquid freon.

239. AMA080 AMA

The cabin pressurization modes of operation are

A) isobaric, differential, and maximum differential.

B) differential, unpressurized, and isobaric.

C) ambient, unpressurized, and isobaric.

240. AMA012 AMA

Which is considered a good practice concerning the inspection of heating and exhaust systems of aircraft utilizing a jacket around the engine exhaust as a heat source?

A) Supplement physical inspections with periodic operational carbon monoxide detection tests.

B) All exhaust system components should be removed periodically, and their condition determined by the magnetic particle inspection method.

C) All exhaust system components should be removed and replaced at each 100-hour inspection period.

241. AMA073 AMA

How often should standard weight high pressure oxygen cylinders be hydrostatically tested?

A) Every 5 years.

B) Every 4 years.

C) Every 3 years.

242. AMA005 AMA

The evacuation of a vapor-cycle cooling system removes any water that may be present by

A) drawing out the liquid.

B) raising the boiling point of the water and drawing out the vapor.

C) lowering the boiling point of the water and drawing out the vapor.

243. AMA005 AMA

When servicing an air conditioning system that has lost all of its freon, it is necessary to

A) check oil and add as necessary, evacuate the system, relieve vacuum, and add freon.

B) check oil and add as necessary, evacuate the system, and add freon.

C) check oil and add as necessary, and add freon.

244. AMA005 AMA

When charging a vapor cycle cooling system after evacuation, the low pressure gauge fails to come out of a vacuum. What is indicated?

A) Blockage in the system.

B) The expansion valve failed to close.

C) The compressor is not engaging.

245. AMA006 AMA

Frost or ice buildup on a vapor cycle cooling system evaporator would most likely be caused by

A) the mixing valve sticking closed.

B) moisture in the evaporator.

C) inadequate airflow through the evaporator.

246. AMA005 AMA

What component in a vapor cycle cooling system would most likely be at fault if a system would not take a freon charge?

A) Expansion valve.

B) Condenser.

C) Receiver dryer.

247. AMA006 AMA

The purpose of a subcooler in a vapor cycle cooling system is to

A) augment the cooling capacity during periods of peak demand.

B) aid in quick cooling a hot aircraft interior.

C) cool the freon to prevent premature vaporization.

248. AMA002 AMA

When purging a freon air conditioning system, it is important to release the charge at a slow rate. What is the reason for the slow rate discharge?

A) Prevent the large amount of freon from contaminating the surrounding atmosphere.

B) Prevent excessive loss of refrigerant oil.

C) Prevent condensation from forming and contaminating the system.

249. AMA074 AMA

The main cause of contamination in gaseous oxygen systems is

A) moisture.

B) dust and other airborne particulates.

C) other atmospheric gases.

250. AMA074 AMA

High pressure cylinders containing oxygen for aviation use can be identified by their

A) green color and the words 'BREATHING OXYGEN' stenciled in 1-inch white letters.

B) yellow color and the words 'AVIATOR'S BREATHING OXYGEN' stenciled in 1-inch white letters.

C) green color and the words 'AVIATOR'S BREATHING OXYGEN' stenciled in 1-inch white letters.

251. AMA074 AMA

If a high pressure oxygen cylinder is to be installed in an airplane, it must meet the specifications of the

A) aircraft manufacturer or the cylinder manufacturer.

B) Department of Transportation.

C) National Transportation Safety Board or the Standards of Compressed Gas Cylinders.

252. AMA072 AMA

What controls the amount of oxygen delivered to a mask in a continuous flow oxygen system?

A) Calibrated orifice.

B) Pressure reducing valve.

C) Pilot's regulator.

253. AMA072 AMA

The purpose of the airflow metering aneroid assembly found in oxygen diluter demand regulators is to

A) regulate airflow in relation to oxygen flow when operating in emergency or diluter demand positions.

B) regulate airflow in relation to cabin altitude when in diluter demand position.

C) automatically put the regulator in emergency position if the demand valve diaphragm ruptures.

254. AMA074 AMA

(1) Oxygen used in aircraft systems is at least 99.5 percent pure and is practically water free.

(2) Oxygen used in aircraft systems is 99.5 percent pure and is hospital quality.

Regarding the above statements,

A) only No. 1 is true.

B) both No. 1 and No. 2 are true.

C) neither No. 1 nor No. 2 is true.

255. AMA072 AMA

In a gaseous oxygen system, which of the following are vented to blow out plugs in the fuselage skin?

A) Pressure relief valves.

B) Filler shutoff valves.
C) Pressure reducer valves.

256. AMA074 AMA
What test is used to determine the serviceability of an oxygen cylinder?
A) Pressure test with manometer.
B) Pressure test with nitrogen.
C) Pressure test with water.

257. AMA074 AMA
Oxygen systems in unpressurized aircraft are generally of the
A) continuous flow and pressure demand types.
B) pressure demand type only.
C) portable bottle type only.

258. AMA074 AMA
Before a high pressure oxygen cylinder is serviced, it must be the correct type and have been
A) hydrostatically tested within the proper time interval.
B) approved by the National Transportation Safety Board.
C) inspected by a certificated airframe mechanic.

259. AMA073 AMA
When an aircraft's oxygen system has developed a leak, the lines and fittings should be
A) removed and replaced.
B) inspected using a special oxygen system dye penetrant.
C) bubble tested with a special soap solution manufactured specifically for this purpose.

260. AMA085 AMA
A radar altimeter indicates
A) flight level (pressure) altitude.
B) altitude above sea level.
C) altitude above ground level.

261. AMA085 AMA
A radar altimeter determines altitude by
A) transmitting a signal and receiving back a reflected signal.
B) receiving signals transmitted from ground radar stations.
C) means of transponder interrogation.

262. AMA014 AMA

A Bourdon tube instrument may be used to indicate

1. pressure.

2. temperature.

3. position.

A) 1 and 2.

B) 1.

C) 2 and 3.

263. AMA063 AMA

The operating mechanism of most hydraulic pressure gauges is

A) a Bourdon tube.

B) an airtight diaphragm.

C) an evacuated bellows filled with an inert gas to which suitable arms, levers, and gears are attached.

264. AMA013 AMA

(1) Aircraft instruments are color-coded to direct attention to operational ranges and limitations.

(2) Aircraft instruments range markings are not specified by Title 14 of the Code of Federal Regulations but are standardized by aircraft manufacturers.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

265. AMA036 AMA

Magnetic compass bowls are filled with a liquid to

A) retard precession of the float.

B) reduce deviation errors.

C) dampen the oscillation of the float.

266. AMA054 AMA

The function of a symbol generator (SG) in an EFIS is to

A) display alphanumeric data and representations of aircraft instruments.

B) allow the pilot to select the appropriate system configuration for the current flight situation.

C) receive and process input signals from aircraft and engine sensors and send the data to the appropriate display.

267. AMA014 AMA

Data transmitted between components in an EFIS are converted into

A) digital signals.

B) analog signals.

C) carrier wave signals.

268. AMA041 AMA

Fuel flow transmitters are designed to transmit data

A) mechanically.

B) electrically.

C) utilizing fluid power.

269. AMA010 AMA

The operation of an angle of attack indicating system is based on detection of differential pressure at a point where the airstream flows in a direction

A) not parallel to the true angle of attack of the aircraft.

B) parallel to the angle of attack of the aircraft.

C) parallel to the longitudinal axis of the aircraft.

270. AMA008 AMA

What does a reciprocating engine manifold pressure gauge indicate when the engine is not operating?

A) Zero pressure.

B) The differential between the manifold pressure and the atmospheric pressure.

C) The existing atmospheric pressure.

271. AMA076 AMA

The requirements for testing and inspection of instrument static systems required by Section 91.411 are contained in

A) Type Certificate Data Sheets.

B) AC 43.13-1A.

C) Part 43, appendix E.

272. AMA090 AMA

Who is authorized to repair an aircraft instrument?

1. A certified mechanic with an airframe rating.

2. A certificated repairman with an airframe rating.

3. A certificated repair station approved for that class instrument.

4. A certificated airframe repair station.

A) 1, 2, 3, and 4.

B) 3 and 4.

C) 3.

273. AMA096 AMA

The maximum altitude loss permitted during an unpressurized aircraft instrument static pressure system integrity check is

A) 50 feet in 1 minute.

B) 200 feet in 1 minute.

C) 100 feet in 1 minute.

274. AMA096 AMA

What will be the result if the instrument static pressure line becomes disconnected inside a pressurized cabin during cruising flight?

A) The altimeter and airspeed indicator will both read low.

B) The altimeter and airspeed indicator will both read high.

C) The altimeter will read low and the airspeed indicator will read high.

275. AMA013 AMA

What marking color is used to indicate if a cover glass has slipped?

A) Red.

B) White.

C) Yellow.

276. AMA013 AMA

The green arc on an aircraft temperature gauge indicates

A) the instrument is not calibrated.

B) the desirable temperature range.

C) a low, unsafe temperature range.

277. AMA014 AMA

The lubber line on a directional gyro is used to

A) represent the nose of the aircraft.

B) align the instrument glass in the case.

C) represent the wings of the aircraft.

278. AMA013 AMA

The method of mounting aircraft instruments in their respective panels depends on the

A) instrument manufacturer.

B) design of the instrument case.

C) design of the instrument panel.

279. AMA013 AMA

Aircraft instrument panels are generally shock mounted to absorb

A) all vibration.

B) low frequency, high amplitude shocks.

C) high frequency, high amplitude shocks.

280. AMA013 AMA

An aircraft instrument panel is electrically bonded to the aircraft structure to

A) act as a restraint strap.

B) provide current return paths.

C) aid in the panel installation.

281. AMA013 AMA

Where may a person look for the information necessary to determine the required markings on an engine instrument?

1. Engine manufacturer's specifications.

2. Aircraft flight manual.

3. Instrument manufacturer's specifications.

4. Aircraft maintenance manual.

A) 2 or 4.

B) 1 or 4.

C) 2 or 3.

282. AMA090 AMA

A certificated mechanic may perform

A) minor repairs to instruments.

B) 100-hour inspections of instruments.

C) instrument overhaul.

283. AMA096 AMA

When an unpressurized aircraft's static pressure system is leak checked to comply with the requirements of Section 91.411, what aircraft instrument may be used in lieu of a pitot-static system tester?

1. Vertical speed indicator.
2. Cabin altimeter.
3. Altimeter.
4. Cabin rate-of-change indicator.
5. Airspeed indicator.

A) 1 or 5.

B) 2 or 4.

C) 3.

284. AMA096 AMA

When performing the static system leakage check required by Section 91.411, the technician utilizes

A) static pressure.

B) positive pressure.

C) negative pressure.

285. AMA090 AMA

Which procedure should you use if you find a vacuum operated instrument glass loose?

A) Mark the case and glass with a slippage mark.

B) Replace the glass.

C) Install another instrument.

286. AMA071 AMA

On modern large aircraft, what electronic device typically monitors flight parameters and performs autopilot functions?

A) Flight management computer.

B) Transponder.

C) Control/display unit.

287. AMA071 AMA

In general, the purpose of an aircraft transponder is to

A) continually transmit heading, speed, and rate of climb/decent etc. information to ATC.

B) monitor aircraft speed, heading, altitude, and attitude whenever the autopilot system is engaged.

C) receive an interrogation signal from a ground station and automatically send a reply back.

288. AMA071 AMA

Static dischargers help eliminate radio interference by dissipating static electricity into the atmosphere at

A) low current levels.

B) high voltage level.

C) high current levels.

289. AMA071 AMA

Part of the ADF system used on aircraft includes

A) RMI indicator antenna.

B) marker beacon antenna.

C) sense and loop antennas.

290. AMA023 AMA

An aircraft antenna installation must be grounded

A) to the airframe.

B) to the engine.

C) to the radio rack.

291. AMA086 AMA

The preferred location of an ELT is

A) where it is readily accessible to the pilot or a member of the flightcrew while the aircraft is in flight.

B) as far aft as possible.

C) as far aft as possible, but forward of the vertical fin.

292. AMA087 AMA

When must the radio station license be displayed in an aircraft equipped with a two-way radio?

A) When the aircraft is operated outside the U.S..

B) When the aircraft is returned to service.

C) When the aircraft is certified for IFR flight.

293. AMA044 AMA

How may the battery replacement date be verified for an emergency locator transmitter (ELT)?

A) By removing the batteries and testing them under a measured load to determine if 50 percent of the useful life remains.

B) By observing the battery replacement date marked on the outside of the transmitter.

C) By activating the transmitter and measuring the signal strength.

294. AMA025 AMA

In which control element of an autopilot system is an attitude indicator?

A) Command.

B) Sensing.

C) Input.

295. AMA025 AMA

What component of an autopilot system applies torque to the control surfaces of an aircraft?

A) Servo.

B) Controller.

C) Gyro.

296. AMA025 AMA

Which channel of an autopilot detects changes in pitch attitude of an aircraft?

A) Elevator.

B) Aileron.

C) Rudder.

297. AMA025 AMA

What component is the sensing device in an electromechanical autopilot system?

A) Servo.

B) Gyro.

C) Controller.

298. AMA025 AMA

In an autopilot, which signal nullifies the input signal to the ailerons?

A) Displacement signal.

B) Course signal.

C) Followup signal.

299. AMA026 AMA

When operationally checking an autopilot system on the ground, after the aircraft's main power has been switched on, the autopilot should be engaged

A) only after the gyros come up to speed and the amplifier warms up.

B) whenever the operator desires.

C) for only a few minutes at a time.

300. AMA025 AMA

Dutch roll, a combination yawing and rolling oscillation that affects many sweptwing aircraft, is counteracted with

A) a flight director system.

B) an aileron damper system.

C) a yaw damper system.

301. AMA023 AMA

When an antenna is installed, it should be fastened

A) to the primary structure at the approximate intersection of the three aircraft axes.

B) with a reinforcing doubler on each side of the aircraft skin.

C) so that loads imposed are transmitted to the aircraft structure.

302. AMA023 AMA

Doublers are used when antennas are installed to

A) eliminate antenna vibration.

B) prevent oil canning of the skin.

C) reinstate the structural strength of the aircraft skin.

303. AMA023 AMA

What characteristics of the installation of a rigid antenna on a vertical stabilizer should be evaluated?

A) Polarization and impedance.

B) Impedance and interference.

C) Flutter and vibration.

304. AMA023 AMA

(Refer to Airframe figure 15.) What is the approximate drag load on an antenna with a frontal area of .125 square feet installed on an aircraft with a speed of 225 MPH?

A) 2.069 pounds.

B) 2.073 pounds.

C) 2.080 pounds.

305. AMA085 AMA

A DME antenna should be located in a position on the aircraft that will

A) not be blanked by the wing when the aircraft is banked.

B) permit interruptions in DME operation.

C) eliminate the possibility of the DME locking on a station.

306. AMA023 AMA

When installing a DME antenna, it should be aligned with the

A) null position.

B) angle of incidence.

C) centerline on the airplane.

307. AMA023 AMA

(Refer to Airframe figure 16.) Which of the antennas shown is a typical glideslope antenna?

A) 2.

B) 3.

C) 4.

308. AMA028 AMA

How much clearance from the seat bottom is required when installing radio equipment under a seat?

A) 3 inches with the seat unoccupied.

B) No set minimum as long as the equipment receives adequate cooling and damage protection.

C) 1 inch with the seat occupied and subjected to maximum downward seat spring deflection.

309. AMA055 AMA

Which of the following is employed to maintain lateral stability when jettisoning fuel?

A) Two separate independent systems.

B) Crossfeed system.

C) Two interconnected systems.

310. AMA054 AMA

The primary purpose of an aircraft's fuel jettison system is to quickly achieve a

A) lower landing weight.

B) balanced fuel load.

C) reduced fire hazard.

311. AMA054 AMA

Fuel is moved overboard in most fuel jettison systems by

A) boost pumps.

B) gravity.

C) gravity and engine driven fuel pumps.

312. AMA055 AMA

Aircraft pressure fueling systems instructional procedures are normally placarded on the

A) fuel control panel access door.

B) lower wing surface adjacent to the access door.

C) aircraft ground connection point.

313. AMA052 AMA

Which of the following precautions is most important during refueling operations?

A) All outside electrical sources must be disconnected from the aircraft.

B) Fuel to be used must be appropriately identified.

C) All electrical switches must be in OFF position.

314. AMA052 AMA

What is the maximum vapor pressure allowable for an aircraft fuel?

A) 7 PSI.

B) 5 PSI.

C) 3 PSI.

315. AMA054 AMA

According to Part 23, what minimum required markings must be placed at or near each appropriate fuel filler cover for reciprocating engine-powered airplanes?

A) The word 'Avgas' and the minimum fuel grade.

B) The word 'Fuel' and usable fuel capacity.

C) The word 'Avgas' and the total fuel capacity.

316. AMA003 AMA

What minimum required markings must be placed on or near each appropriate fuel filler cover on utility category aircraft?

A) The word 'Avgas' and the minimum fuel grade, and the total fuel tank capacity.

B) The word 'Avgas' and the minimum fuel grade or designation for the engines, and the usable fuel tank capacity.

C) The word 'Avgas' and the minimum fuel grade .

317. AMA054 AMA

The primary purpose of a fuel tank sump is to provide a

A) positive system of maintaining the design minimum fuel supply for safe operation.

B) place where water and dirt accumulations in the tank can collect and be drained.

C) reserve supply of fuel to enable the aircraft to land safely in the event of fuel exhaustion.

318. AMA052 AMA

The vapor pressure of aviation gasoline is

A) lower than the vapor pressure of automotive gasoline.

B) higher than the vapor pressure of automotive gasoline.

C) approximately 20 PSI at 100 °F.

319. AMA054 AMA

(1) On a large aircraft pressure refueling system, a pressure refueling receptacle and control panel will permit one person to fuel or defuel any or all fuel tanks of an aircraft.

(2) Because of the fuel tank area, there are more advantages to a pressure fueling system in light aircraft.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

320. AMA054 AMA

What type of fuel booster pump requires a pressure relief valve?

A) Concentric.

B) Sliding vane.

C) Centrifugal.

321. AMA055 AMA

Why are centrifugal type boost pumps used in fuel systems of aircraft operating at high altitude?

A) Because they are positive displacement pumps.

B) To supply fuel under pressure to engine driven pumps.

C) To permit cooling air to circulate around the motor.

322. AMA054 AMA

Flapper valves are used in fuel tanks to

A) reduce pressure.

B) prevent a negative pressure.

C) act as check valves.

323. AMA054 AMA

Fuel boost pumps are operated

A) to provide a positive flow of fuel to the engine.

B) primarily for fuel transfer.

C) automatically from fuel pressure.

324. AMA052 AMA

How may the antiknock characteristics of a fuel be improved?

A) By adding a knock inhibitor.

B) By adding a knock enhancer.

C) By adding a fungicide agent.

325. AMA052 AMA

If an aircraft is fueled from a truck or storage tank which is known to be uncontaminated with dirt or water, periodic checks of the aircraft's fuel tank sumps and system strainers

A) can be eliminated except for the strainer check before the first flight of the day and the fuel tank sump check during 100-hour or annual inspections.

B) are still necessary due to the possibility of contamination from other sources.

C) can be sharply reduced since contamination from other sources is relatively unlikely and of little consequence in modern aircraft fuel systems.

326. AMA054 AMA

What precautions must be observed if a gravity feed fuel system is permitted to supply fuel to an engine from more than one tank at a time?

A) The tank airspaces must be interconnected.

B) The fuel outlet ports of each tank must have the same cross sectional area.

C) Each tank must have a valve in its outlet that automatically shuts off the line when the tank is empty.

327. AMA052 AMA

(1) If aviation gasoline vaporizes too readily, fuel lines may become filled with vapor and cause increased fuel flow.

(2) A measure of a gasoline's tendency to vapor lock is obtained from the Reid vapor pressure test.

Regarding the above statements,

A) only No. 2 is true.

B) both No. 1 and No. 2 are true.

C) neither No. 1 nor No. 2 is true.

328. AMA054 AMA

What is the purpose of a float operated transmitter installed in a fuel tank?

A) It sends an electric signal to the fuel quantity indicator.

B) It senses the total amount of fuel density.

C) It senses the dielectric qualities of fuel and air in the tank.

329. AMA052 AMA

How does temperature affect fuel weight?

A) Cold fuel is heavier per gallon.

B) Warm fuel is heavier per gallon.

C) Temperature has no effect.

330. AMA054 AMA

A drip gauge may be used to measure

A) the amount of fuel in the tank.

B) system leakage with the system shut down.

C) fuel pump diaphragm leakage.

331. AMA054 AMA

The probe of a capacitance type fuel level gauge is essentially a

A) float actuated variable capacitor.

B) capacitor with fuel and air acting as one plate.

C) capacitor with fuel and air acting as a dielectric.

332. AMA041 AMA

An electrical type fuel quantity indicating system consists of an indicator in the cockpit and a

A) float operated transmitter installed in the tank.

B) float resting on the surface of the tank.

C) float operated receiver installed in the tank.

333. AMA054 AMA

A capacitance type fuel quantity indicating system measures fuel in

A) pounds.

B) pounds per hour.

C) gallons.

334. AMA041 AMA

One advantage of electrical and electronic fuel quantity indicating systems is that

A) the indicators are calibrated in gallons; therefore, no conversion is necessary.

B) only one transmitter and one indicator are needed regardless of the number of tanks.

C) several fuel tank levels can be read on one indicator.

335. AMA054 AMA

A probe or a series of probes is used in what kind of fuel quantity indicating system?

A) Selsyn.

B) Capacitor.

C) Synchro.

336. AMA054 AMA

What must each fuel quantity indicator be calibrated to read during level flight when the quantity of fuel remaining is equal to the unusable fuel supply?

A) The total unusable fuel quantity.

B) Both the total unusable fuel quantity and the unusable fuel quantity in each tank.

C) Zero.

337. AMA055 AMA

Fuel system components must be bonded and grounded in order to

A) drain off static charges.

B) prevent stray currents.

C) retard galvanic corrosion.

338. AMA052 AMA

Which procedure must be followed when defueling aircraft with sweptback wings?

A) Defuel all the tanks at one time.

B) Defuel the inboard wing tanks first.

C) Defuel the outboard wing tanks first.

339. AMA056 AMA

Normal fuel crossfeed system operation in multiengine aircraft

A) calls for jettisoning of fuel overboard to correct lateral instability.

B) reduces contamination and/or fire hazards during fueling or defueling operations.

C) provides a means to maintain a balanced fuel load condition.

340. AMA054 AMA

What is one purpose of a fuel tank vent?

A) To maintain atmospheric pressure.

B) To decrease fuel vapor pressure.

C) To decrease tank internal air pressure.

341. AMA054 AMA

Why is the main fuel strainer located at the lowest point in the fuel system?

A) It traps any small amount of water that may be present in the fuel system.

B) It provides a drain for residual fuel.

C) It filters and traps all micro organisms that may be present in the fuel system.

342. AMA055 AMA

What is the recommended practice for cleaning a fuel tank before welding?

A) Purge the tank with air.

B) Flush the inside of the tank with clean water.

C) Steam clean the tank interior.

343. AMA052 AMA

If it is necessary to enter an aircraft's fuel tank, which procedure should be avoided?

A) Continue purging the tank during the entire work period.

B) Station an assistant outside the fuel tank access to perform rescue operations if required.

C) Conduct the defueling and tank purging operation in an air conditioned building.

344. AMA055 AMA

Which of the following may be used for the repair of fuel leaks on most integral fuel tanks?

A) Welding and resealing.

B) Brazing and resealing.

C) Riveting and resealing.

345. AMA055 AMA

What method would be used to check for internal leakage of a fuel valve without removing the valve from the aircraft?

A) Place the valve in the OFF position, drain the strainer bowl, and with boost pump on, watch to see if fuel flows to the strainer bowl.

B) Remove fuel cap(s), turn boost pump(s) on, and watch for bubbling in the tanks.

C) Apply regulated air pressure on the downstream side of the fuel pump and listen for air passing through the valve.

346. AMA055 AMA

When moving the mixture control on a normally operating engine into the idle cutoff position, engine RPM should

A) slightly increase before the engine starts to die.

B) slightly decrease and then drop rapidly.

C) remain the same until the cutoff is effected, then drop rapidly.

347. AMA054 AMA

(1) A fuel pressure relief valve is required on an aircraft positive displacement fuel pump.

(2) A fuel pressure relief valve is required on an aircraft centrifugal fuel boost pump.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

348. AMA053 AMA

(1) A fuel heater can use engine bleed air as a source of heat.

(2) A fuel heater can use engine lubricating oil as a source of heat.

Regarding the above statements,

A) only No. 1 is true.

B) both No. 1 and No. 2 are true.

C) neither No. 1 nor No. 2 is true.

349. AMA053 AMA

(1) The function of a fuel heater is to protect the engine fuel system from ice formation.

(2) An aircraft fuel heater cannot be used to thaw ice in the fuel screen.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

350. AMA054 AMA

A fuel pressure warning switch contacts close and warning light is turned on when

A) a measured quantity of fuel has passed through it.

B) the fuel flow stops.

C) the fuel pressure drops below specified limits.

351. AMA054 AMA

What method is used on turbine powered aircraft to determine when the condition of the fuel is approaching the danger of forming ice crystals?

A) Fuel pressure warning.

B) Fuel pressure gauge.

C) Fuel temperature indicator.

352. AMA054 AMA

What is the purpose of flapper type check valves in integral fuel tanks?

A) To allow defueling of the tanks by suction.

B) To prevent fuel from flowing away from the boost pumps.

C) To allow the engine driven pumps to draw fuel directly from the tank if the boost pump fails.

353. AMA055 AMA

What unit would be adjusted to change the fuel pressure warning limits?

A) Fuel flowmeter bypass valve.

B) Pressure sensitive mechanism.

C) Fuel pressure relief valve.

354. AMA055 AMA

Which of the following would be most useful to locate and troubleshoot an internal fuel leak in an aircraft fuel system?

A) Aircraft structure repair manual.

B) Illustrated parts manual.

C) A fuel system schematic.

355. AMA041 AMA

CSD driven generators are usually cooled by

A) oil spray.

B) an integral fan.

C) both ram air and an integral fan.

356. AMA041 AMA

Integrated drive generators (IDG) employ a type of high output ac generator that utilizes

A) brushes and slip rings to carry generated dc exciter current to the rotating field.

B) battery current to excite the field.

C) a brushless system to produce current.

357. AMA041 AMA

When necessary during operation, CSD disconnect is usually accomplished by

A) a switch in the cockpit.

B) circuit breaker activation.

C) a shear section in the input shaft.

358. AMA041 AMA

A voltage regulator controls generator voltage by changing the

A) resistance in the generator output circuit.

B) current in the generator output circuit.

C) resistance of the generator field circuit.

359. AMA041 AMA

The voltage in an ac transformer secondary that contains twice as many loops as the primary will be

A) greater and the amperage less than in the primary.

B) greater and the amperage greater than in the primary.

C) less and the amperage greater than in the primary.

360. AMA015 AMA

Which of the following must be accomplished when installing an anticollision light?

A) Install a switch independent of the position light switch.

B) Use shielded electrical cable to assure fail safe operation.

C) Connect the anticollision light to the aircraft position light switch.

361. AMA054 AMA

How are generators rated?

A) Watts at rated voltage.

B) Amperes at rated voltage.

C) The impedance at rated voltage.

362. AMA041 AMA

The inductor type inverter output voltage is controlled by the

A) number of poles and the speed of the motor.

B) voltage regulator.

C) dc stator field current.

363. AMA041 AMA

Aircraft which operate only ac generators (alternators) as a primary source of electrical power normally provide current suitable for battery charging through the use of

A) a stepdown transformer and a rectifier.

B) an inverter and a voltage dropping resistor.

C) a dynamotor with a half wave dc output.

364. AMA041 AMA

One advantage of using ac electrical power in aircraft is

A) that ac electrical motors can be reversed while dc motors cannot.

B) greater ease in stepping the voltage up or down.

C) that the effective voltage is 1.41 times the maximum instantaneous voltage; therefore, less power input is required.

365. AMA054 AMA

What is a method used for restoring generator field residual magnetism?

A) Flash the fields.

B) Reseat the brushes.

C) Energize the armature.

366. AMA042 AMA

In troubleshooting an electrical circuit, if an ohmmeter is properly connected across a circuit component and some value of resistance is read,

A) the component has continuity and is open.

B) either the component or the circuit is shorted.

C) the component has continuity and is not open.

367. AMA041 AMA

If it is necessary to use an electrical connector where it may be exposed to moisture, the mechanic should

A) coat the connector with grease.

B) use a special moisture proof type.

C) spray the connector with varnish or zinc chromate.

368. AMA042 AMA

When using the voltage drop method of checking circuit resistance, the

A) input voltage must be maintained at a constant value.

B) output voltage must be maintained at a constant value.

C) input voltage must be varied.

369. AMA041 AMA

A certain switch is described as a single pole, double throw switch (SPDT). The throw of a switch indicates the number of

A) circuits each pole can complete through the switch.

B) terminals at which current can enter or leave the switch.

C) places at which the operating device (toggle, plunger, etc.) will come to rest and at the same time open or close a circuit.

370. AMA042 AMA

What is an important factor in selecting aircraft fuses?

A) The current exceeds a predetermined value.

B) The voltage rating should be lower than the maximum circuit voltage.

C) Capacity matches the needs of the circuit.

371. AMA042 AMA

What is the advantage of a circuit breaker when compared to a fuse?

A) Never needs replacing.

B) Always eliminates the need of a switch.

C) Resettable and reusable.

372. AMA042 AMA

A circuit breaker is installed in an aircraft electrical system primarily to protect the

A) circuit and should be located as close to the source as possible.

B) circuit and should be located as close to the unit as possible.

C) electrical unit in the circuit and should be located as close to the source as possible.

373. AMA041 AMA

Aircraft fuse capacity is rated in

A) volts.

B) ohms.

C) amperes.

374. AMA041 AMA

Circuits that must be operated only in an emergency or whose inadvertent activation could endanger a system frequently employ

A) guarded switches.

B) push-pull-type circuit breakers only (no switches).

C) spring-loaded to off toggle or rocker switches.

375. AMA041 AMA

Where electric cables must pass through holes in bulkheads, formers, ribs, firewalls, etc., the wires should be protected from chafing by

A) wrapping with electrical tape.

B) using a suitable grommet.

C) wrapping with plastic.

376. AMA041 AMA

If a wire is installed so that it comes in contact with some moving parts, what protection should be given the wire?

A) Wrap with soft wire solder into a shield.

B) Wrap with friction tape.

C) Pass through conduit.

377. AMA041 AMA

Which of the following should be accomplished in the installation of aircraft wiring?

A) Support the bundle to structure and/ or solid fluid lines to prevent chafing damage.

B) Provide adequate slack in the wire bundle to compensate for large changes in temperature.

C) Locate the bundle above flammable fluid lines and securely clamp to structure.

378. AMA042 AMA

How does the routing of coaxial cables differ from the routing of electrical wiring?

A) Coaxial cables are routed parallel with stringers or ribs.

B) Coaxial cables are routed at right angles to stringers or ribs.

C) Coaxial cables are routed as directly as possible.

379. AMA042 AMA

What is the voltage drop for a No. 18 copper wire 50 feet long to carry 12.5 amperes, continuous operation?

Use the formula VD = RLA

VD = Voltage drop

R = Resistance per ft = .00644

L = Length of wire

A = Amperes

A) 1/2V.

B) 1V.

C) 4V.

380. AMA041 AMA

Electric wiring installed in aircraft without special enclosing means (open wiring) offers the advantages of ease of installation, simple maintenance, and reduced weight. When bundling open wiring, the bundles should

A) be limited as to the number of cables to minimize damage from a single electrical fault.

B) include at least one shielded cable to provide good bonding of the bundle to the airframe.

C) be limited to a minimum bend radius of five times the bundle diameter to avoid excessive stresses on the cable insulation.

381. AMA041 AMA

The primary considerations when selecting electric cable size are

A) current carrying capacity and allowable voltage drop.

B) the voltage and amperage of the load it must carry.

C) the system voltage and cable length.

382. AMA042 AMA

In installations where the ammeter is in the generator or alternator lead, and the regulator system does not limit the maximum current that the generator or alternator can deliver, the ammeter can be redlined at what percent of the generator or alternator rating?

A) 50.

B) 75.

C) 100.

383. AMA042 AMA

Bonding connections should be tested for

A) resistance value.

B) amperage value.

C) reactance.

384. AMA054 AMA

The poles of a generator are laminated to

A) reduce flux losses.

B) increase flux concentration.

C) reduce eddy current losses.

385. AMA054 AMA

If any one generator in a 24-volt dc system shows low voltage, the most likely cause is

A) an out of adjustment voltage regulator.

B) shorted or grounded wiring.

C) a defective reverse current cutout relay.

386. AMA054 AMA

When dc generators are operated in parallel to supply power for a single load, their controls include an equalizer circuit to assure that all generators share the load equally. The equalizer circuit operates by

A) increasing the output of the low generator to equal the output of the high generator.

B) decreasing the output of the high generator to equal the output of the low generator.

C) increasing the output of the low generator and decreasing the output of the high generator until they are equal.

387. AMA030 AMA

(Refer to Airframe figure 18.) Which of the batteries are connected together incorrectly?

A) 1.

B) 2.

C) 3.

388. AMA009 AMA

What is the color and orientation of the position lights for navigation on civil airplanes?

A) Left side - green, right side - red, rear aft - white.

B) Left side - red, right side - green, rear aft - white.

C) Left side - white, right side - green, rear aft - red.

389. AMA041 AMA

The type of electric wire terminals used for most aircraft applications, in addition to providing good current carrying capabilities, are designed primarily

A) to prevent circuit failure due to terminal disconnection.

B) for uncomplicated and rapid circuit connection and disconnection.

C) for permanent connection to the circuit.

390. AMA041 AMA

What does a rectifier do?

A) Changes direct current into alternating current.

B) Changes alternating current into direct current.

C) Reduces voltage.

391. AMA042 AMA

Electric circuits are protected from overheating by means of

A) thermocouples.

B) shunts.

C) fuses.

392. AMA039 AMA

What is the principal advantage of the series wound dc motor?

A) High starting torque.

B) Suitable for constant speed use.

C) Low starting torque.

393. AMA039 AMA

A series wound dc electric motor will normally require

A) more current at high RPM than at low RPM.

B) approximately the same current throughout its operating range of speed.

C) more current at low RPM than at high RPM.

394. AMA041 AMA

The method most often used in overcoming the effect of armature reaction is through the use of

A) interpoles.

B) shaded poles.

C) drum wound armatures in combination with a negatively connected series field.

395. AMA041 AMA

Aircraft electrical junction boxes located in a fire zone are usually constructed of

A) asbestos.

B) cadmium plated steel.

C) stainless steel.

396. AMA041 AMA

The pin section of an AN/MS connector is normally installed on

A) the power supply side of a circuit.

B) the ground side of a circuit.

C) either side of a circuit (makes no difference).

397. AMA054 AMA

The most common method of regulating the voltage output of a compound dc generator is to vary the

A) current flowing through the shunt field coils.

B) total effective field strength by changing the reluctance of the magnetic circuit.

C) resistance of the series field circuit.

398. AMA054 AMA

In a generator, what eliminates any possible sparking to the brush guides caused by the movement of the brushes within the holder?

A) The brush pigtail.

B) Brush spring tension.

C) Undercutting the mica on the commutator.

399. AMA041 AMA

A voltage regulator controls generator output by

A) introducing a resistance in generator-to-battery lead in the event of overload.

B) shorting out field coil in the event of overload.

C) varying current flow to generator field coil.

400. AMA054 AMA

Which of the following is not one of the purposes of interpoles in a generator?

A) Reduce field strength.

B) Overcome armature reaction.

C) Reduce arcing at the brushes.

401. AMA054 AMA

To what depth is the mica insulation between the commutator bars of a dc generator undercut?

A) One half the width of the mica.

B) Equal to twice the width of the mica.

C) Equal to the width of the mica.

402. AMA054 AMA

The pole pieces or shoes used in a dc generator are a part of the

A) armature assembly.

B) field assembly.

C) brush assembly.

403. AMA054 AMA

If the reverse current cutout relay contact points fail to open after the generator output has dropped below battery potential, current will flow through the generator armature

A) in the normal direction and through the shunt field opposite the normal direction.

B) and the shunt field opposite the normal direction.

C) opposite the normal direction and through the shunt field in the normal direction.

404. AMA054 AMA

To test generator or motor armature windings for opens,

A) place armature in a growler and connect a 110V test light on adjacent segments; light should light.

B) check adjacent segments on commutator with an ohmmeter on the high resistance scale.

C) use a 12/24V test light between the armature core segments and the shaft.

405. AMA054 AMA

The commutator of a generator

A) changes direct current produced in the armature into alternating current as it is taken from the armature.

B) changes alternating current produced in the armature into direct current as it is taken from the armature.

C) reverses the current in the field coils at the proper time in order to produce direct current.

406. AMA042 AMA

When approved, splices may be used to repair manufactured harnesses or installed wiring. The maximum number of splices permitted between any two connectors is

A) one.

B) two.

C) three.

407. AMA041 AMA

How should the splices be arranged if several are to be located in an electrical wire bundle?

A) Staggered along the length of the bundle.

B) Grouped together to facilitate inspection.

C) Enclosed in a conduit.

408. AMA043 AMA

What is the most accurate type of frequency measuring instrument?

A) Integrated circuit chip having a clock circuit.

B) Electrodynamometers using electromagnetic fields.

C) Electromagnets using one permanent magnet.

409. AMA041 AMA

For general electrical use in aircraft, the acceptable method of attaching a terminal to a wire is by

A) crimping.

B) soldering.

C) crimping and soldering.

410. AMA042 AMA

Which of the following factors must be taken into consideration when determining the wire size to use for an aircraft installation?

1. Mechanical strength.

2. Allowable power loss.

3. Ease of installation.

4. Resistance of current return path through the aircraft structure.

5. Permissible voltage drop.

6. Current carrying capability of the conductor.

7. Type of load (continuous or intermittent).

A) 2, 5, 6, 7.

B) 1, 2, 4, 5.

C) 2, 4, 6, 7.

411. AMA041 AMA

The most common method of attaching a pin or socket to an individual wire in an MS electrical connector is by

A) crimping.

B) soldering.

C) crimping and soldering.

412. AMA068 AMA

(Refer to Airframe figure 19.) Upon completion of the landing gear extension cycle, the green light illuminated and the red light remained lit. What is the probable cause?

A) Short in the down limit switch.

B) Short in the gear safety switch.

C) Short in the up limit switch.

413. AMA070 AMA

Major adjustments on equipment such as regulators, contactors, and inverters are best accomplished outside the airplane on test benches with necessary instruments and equipment. Adjustment procedure should be as outlined by

A) the equipment manufacturer.

B) the FAA.

C) aircraft technical orders.

414. AMA042 AMA

One purpose of a growler test is to determine the presence of

A) an out of round commutator.

B) a broken field lead.

C) a shorted armature.

415. AMA041 AMA

How can it be determined if a transformer winding has some of its turns shorted together?

A) Measure the input voltage with an ohmmeter.

B) The output voltage will be high.

C) The transformer will get hot in normal operation.

416. AMA031 AMA

An antiskid system is

A) a hydraulic system.

B) an electrohydraulic system.

C) an electrical system.

417. AMA032 AMA

Antiskid braking systems are generally armed by

A) a centrifugal switch.

B) a switch in the cockpit.

C) the rotation of the wheels above a certain speed.

418. AMA041 AMA

In an antiskid system, wheel skid is detected by

A) an electrical sensor.

B) a discriminator.

C) a sudden rise in brake pressure.

419. AMA031 AMA

(1) An antiskid system is designed to apply enough force to operate just below the skid point.

2) A warning lamp lights in the cockpit when the antiskid system is turned off or if there is a system failure.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

420. AMA031 AMA

The purpose of antiskid generators is to

A) monitor hydraulic pressure applied to brakes.

B) indicate when a tire skid occurs.

C) measure wheel rotational speed and any speed changes.

421. AMA010 AMA

The angle of attack detector operates from differential pressure when the airstream

A) is parallel to the longitudinal axis of the aircraft.

B) is not parallel to the true angle of attack of the aircraft.

C) is parallel to the angle of attack of the aircraft.

422. AMA069 AMA

(Refer to Airframe figure 20.) What will illuminate the amber indicator light?

A) Closing the nosewheel gear full retract switch.

B) Retarding one throttle and closing the left wheel gear locked down switch.

C) Closing the nose, left and right wheel gear full retract switches.

423. AMA018 AMA

The primary purpose of a takeoff warning system is to alert the crew that a monitored flight control is not properly set prior to takeoff. The system is activated by

A) an 80 knot airspeed sensor.

B) an ignition system switch not set for takeoff.

C) a thrust lever.

424. AMA010 AMA

(1) A dc selsyn system is a widely used electrical method of indicating a remote mechanical movement or position.

(2) A synchro type indicating system is an electrical system used for transmitting information from one point to another.

Regarding the above statements,

A) only No. 1 is true.

B) only No. 2 is true.

C) both No. 1 and No. 2 are true.

425. AMA068 AMA

Where is the landing gear safety switch usually located?

A) On the main gear shock strut.

B) On the landing gear drag brace.

C) On the pilot's control pedestal.

426. AMA068 AMA

What landing gear warning device(s) is/are incorporated on retractable landing gear aircraft?

A) A visual indicator showing gear position.

B) A light which comes on when the gear is fully down and locked.

C) A horn or other aural device and a red warning light.

427. AMA010 AMA

The rotor in an autosyn remote indicating system uses

A) an electromagnet.

B) a permanent magnet.

C) neither an electromagnet nor a permanent magnet.

428. AMA010 AMA

The rotor in a magnesyn remote indicating system uses

A) a permanent magnet.

B) an electromagnet.

C) an electromagnet and a permanent magnet.

429. AMA041 AMA

Microswitches are used primarily as limit switches to

A) limit generator output.

B) control electrical units automatically.

C) prevent overcharging of a battery.

430. AMA069 AMA

Which repair would require a landing gear retraction test?

A) Landing gear safety switch.

B) Red warning light bulb.

C) Gear downlock microswitch.

431. AMA041 AMA

What is used as a temperature sensing element in an electrically heated windshield?

A) Thermocouple.

B) Thermistor.

C) Thermometer.

432. AMA024 AMA

What method is usually employed to control the temperature of an anti icing system using surface combustion heaters?

A) Thermo cycling switches.

B) Thermostats in the cockpit.

C) Heater fuel shutoff valves.

433. AMA024 AMA

What is the purpose of the oil separator in the pneumatic deicing system?

A) To protect the deicer boots from oil deterioration.

B) To remove oil from air exhausted from the deicer boots.

C) To prevent an accumulation of oil in the vacuum system.

434. AMA024 AMA

Why are the tubes in deicer boots alternately inflated?

A) Alternate inflation of deicer boot tubes keeps disturbance of the airflow to a minimum.

B) Alternate inflation of deicer boot tubes does not disturb airflow.

C) Alternate inflation of deicer boot tubes relieves the load on the air pump.

435. AMA024 AMA

What controls the inflation sequence in a pneumatic deicer boot system?

A) Shuttle valve.

B) Vacuum pump.

C) Distributor valve.

436. AMA024 AMA

Which of the following regulates the vacuum of the air pump to hold the deicing boots deflated when the pneumatic deicing system is off?

A) Distributor valve.

B) Pressure regulator.

C) Suction relief valve.

437. AMA024 AMA

Some aircraft are protected against airframe icing by heating the leading edges of the airfoils and intake ducts. When is this type of anti-ice system usually operated?

A) Continuously while the aircraft is in flight.

B) In symmetric cycles during icing conditions to remove ice as it accumulates.

C) Whenever icing conditions are first encountered or expected to occur.

438. AMA034 AMA

Why should a chemical rain repellant not be used on a dry windshield?

A) It will etch the glass.

B) It will restrict visibility.

C) It will cause glass crazing.

439. AMA079 AMA

What is the principal characteristic of a windshield pneumatic rain removal system?

A) An air blast spreads a liquid rain repellant evenly over the windshield that prevents raindrops from clinging to the glass surface.

B) An air blast forms a barrier that prevents raindrops from striking the windshield surface.

C) A pneumatic rain removal system is simply a mechanical windshield wiper system that is powered by pneumatic system pressure.

440. AMA076 AMA

What is one check for proper operation of a pitot/static tube heater after replacement?

A) Ammeter reading.

B) Voltmeter reading.

C) Continuity check of system.

441. AMA046 AMA

A contaminated carbon monoxide portable test unit would be returned to service by

A) heating the indicating element to 300 °F to reactivate the chemical.

B) installing a new indicating element.

C) evacuating the indicating element with CO2.

442. AMA095 AMA

What occurs when a visual smoke detector is activated?

A) A warning bell within the indicator alarms automatically.

B) A lamp within the indicator illuminates automatically.

C) The test lamp illuminates and an alarm is provided automatically.

443. AMA095 AMA

Smoke detection instruments are classified by their method of

A) construction.

B) maintenance.

C) detection.

444. AMA046 AMA

When used in fire detection systems having a single indicator light, thermal switches are wired in

A) parallel with each other and in series with the light.

B) series with each other and the light.

C) series with each other and parallel with the light.

445. AMA047 AMA

The thermal switches of a bimetallic thermal switch type fire detection (single-loop)system are heat sensitive units that complete circuits at a certain temperature. They are connected in

A) parallel with each other, and in parallel with the indicator lights.

B) parallel with each other, but in series with the indicator lights.

C) series with each other, but in parallel with the indicator lights.

446. AMA048 AMA

Which fire extinguishing agent is considered to be the least toxic?

A) Carbon dioxide.

B) Bromotrifluoromethane (Halon 1301).

C) Bromochloromethane (Halon 1011).

447. AMA048 AMA

The types of fire extinguishing agents for aircraft interior fires are

A) water, carbon dioxide, dry chemical, and halogenated hydrocarbons.

B) water, dry chemical, methyl bromide, and chlorobromomethane.

C) water, carbon tetrachloride, carbon dioxide, and dry chemical.

448. AMA048 AMA

In some fire extinguishing systems, evidence that the system has been intentionally discharged is indicated by the absence of a

A) red disk on the side of the fuselage.

B) green disk on the side of the fuselage.

C) yellow disk on the side of the fuselage.

449. AMA047 AMA

Maintenance of fire detection systems includes the

A) repair of damaged sensing elements.

B) removal of excessive loop or element material.

C) replacement of damaged sensing elements.

450. AMA072 AMA

Which of the following are fire precautions which must be observed when working on an oxygen system?

1. Display 'No Smoking' placards.

2. Provide adequate fire fighting equipment.

3. Keep all tools and oxygen servicing equipment free from oil or grease.

4. Avoid checking aircraft radio or electrical systems.

A) 1, 3, and 4.

B) 1, 2, and 4.

C) 1, 2, 3, and 4.

451. AMA048 AMA

The proper fire extinguishing agent to use on an aircraft brake fire is

A) water.

B) carbon dioxide.

C) dry powder chemical.

452. AMA046 AMA

A fire extinguisher container can be checked to determine its charge by

A) attaching a remote pressure gauge.

B) weighing the container and its contents.

C) a hydrostatic test.

453. AMA048 AMA

In reference to aircraft fire extinguishing systems,

(1) during removal or installation, the terminals of discharge cartridges should be grounded or shorted.

(2) before connecting cartridge terminals to the electrical system, the system should be checked with a voltmeter to see that no voltage exists at the terminal connections.

Regarding the above statements,

A) only No. 2 is true.

B) both No. 1 and No. 2 are true.

C) neither No. 1 nor No. 2 is true.

454. AMA048 AMA

(Refer to Airframe figure 21.) Determine what pressure is acceptable for a fire extinguisher when the surrounding area temperature is 33 °F. (Rounded to the nearest whole number.)

A) 215 to 302 PSIG.

B) 214 to 301 PSIG.

C) 215 to 301 PSIG.