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The following sample questions for Aviation Maintenance Technician Airframe (AMA) are suitable study material to satisfy the airframe portion of the Aviation Maintenance Technician test. These questions are a representation of questions that can be found on AMA test. The applicant must realize that these questions are to be used as a study guide, and are not necessarily actual test questions. The full AMA test contains 100 questions. The Application Identification, Information Verification, and Authorization Requirements Matrix lists all FAA exams. It is available at http://www.faa.gov/training_testing/testing/media/testing_matrix.pdf.

The FAA testing system is supported by a series of supplement publications. These publications include the graphics, legends, and maps that are needed to successfully respond to certain test questions. FAA-CT-8080-4G, Airman Knowledge Testing Supplement for Aviation Maintenance Technician – General, Airframe, and Powerplant; and Parachute Rigger is available at https://www.faa.gov/training_testing/testing/supplements/media/amt_pr_akts.pdf.

The Learning Statement Reference Guide for Airman Knowledge Testing contains listings of learning statements with their associated codes. Matching the learning statement codes with the codes listed on your Airman Knowledge Test Report assists in the evaluation of knowledge areas missed on your exam. It is available at http://www.faa.gov/training_testing/testing/media/LearningStatementReferenceGuide.pdf.

AMA Sample Questions:

1 . AMA102

Any wooden member that has been overstressed is subject to which type of failure?

- A) Stretch.
- B) Compression.
- C) Torsion.

2 . AMA040

Moisture, mildew, chemicals, and acids have no effect on

- A) glass fabric.
- B) cotton fabric.
- C) polyester fabric.

3 . AMA040

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

- A) wipe the surface with methyl-ethyl-ketone (MEK).
- B) remove any contaminants from the surface with a paper towel.
- C) avoid touching the surface with bare hands.

4. AMA037

When conducting a tap test on a composite panel, which of the following sounds would indicate delamination?

- A) Sharp ringing.
- B) Dull thud.
- C) Sharp thud.

5 . AMA094

On a semimonocoque fuselage, the skin is reinforced by longitudinal structural members called

- A) beams and struts.
- B) longerons and stringers.
- C) formers and bulkheads.

6 . AMA037

The length of time that a catalyzed resin will remain in a workable state is called the

- A) pot life.
- B) work life.
- C) pliable life.

7 . AMA037

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

- A) has a high tensile strength and is non-flammable.
- B) has a low weight and is corrosion resistant.
- C) saves weight while not compromising strength.

8. AMA037

Repairing advanced composites using materials and techniques traditionally used for fiberglass repairs is likely to result in

- A) restored strength and flexibility.
- B) slightly stronger strength to weight ratio.
- C) an unairworthy repair.

9 . AMA021

Which part of 2024-T3 aluminum alloy indicates the temper designation?

- A) T3.
- B) 2024.
- C) 20.

10 . AMA021

Which part of the 2017-T36 aluminum alloy indicates the temper designation?

- A) T36.
- B) 2.
- C) 017.

11 . AMA017

Clad aluminum alloys are used in aircraft because they

- A) are naturally corrosion resistant, so they do not require corrosion resistant materials for protection.
- B) have surface layers of pure aluminum or aluminum alloy bonded to the core material to inhibit corrosion.
- C) are highly corrosion resistant because an oxide film forms on their surfaces upon contact with air.

12 . AMA021

Which parts of a semi-monocoque fuselage prevent tension and compression from bending the fuselage?

- A) Ribs and formers.
- B) Longerons and stringers.
- C) Bulkheads and skin.

13 . AMA017

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

- A) low strength characteristics.
- B) unique design that causes crazing or cracking.
- C) tendency toward embrittlement when subjected to vibration.

14 . AMA007

What is indicated by a black 'smoky' residue streaming back from some of the rivets on an aircraft?

- A) Filiform corrosion is occurring between the rivets and the skin.
- B) Intergranular corrosion is occurring between the rivets and the skin.
- C) Fretting corrosion is occurring between the rivets and the skin.

15 . AMA011

Which of the following is one advantage of Hi-Lok fasteners?

- A) Shorter transition area between the shank and thread.
- B) External counterbore at the base to accommodate material thickness.
- C) Inability to be over-torqued.

16 . AMA101

In gas welding, the amount of heat applied to the material being welded is controlled by the

- A) oxygen-acetylene regulator.
- B) size of the tip opening.
- C) cutting oxygen valve lever.

17 . AMA101

When a butt welded joint is visually inspected for penetration, the penetration should be

- A) 50 percent of the thickness of the base metal.
- B) 100 percent of the thickness of the base metal.
- C) 75 percent of the thickness of the base metal.

18 . AMA101

Which statement best describes magnesium welding?

- A) It has low thermal conductivity, so distortion and cracking rarely occur.
- B) It is recommended to use larger welding beads and a slower welding speed than normal.
- C) It can be welded successfully using the same type of joints that are used for aluminum.

19 . AMA101

When welding or cutting, the acetylene pressure gauge should never be set higher than

- A) 15 PSI.
- B) 20 PSI.
- C) 25 PSI.

20 . AMA101

When selecting a welding rod, one of the most important factors to consider is to ensure that

- A) ferrous rods are used on aluminum.
- B) the proper AMS specification number is used.
- C) nonferrous rods are used on steel.

21 . AMA011

When installing a castle nut, start alignment with the cotter pin hole at the

- A) minimum recommended torque without friction drag torque.
- B) maximum recommended torque minus friction drag torque.
- C) minimum recommended torque plus friction drag torque.

22 . AMA092

Placing a piece of cloth around a stainless steel control cable and running it back and forth over the length of the cable is generally a satisfactory method of inspecting for

- A) corrosion.
- B) broken strands.
- C) excessive wear.

23 . AMA001

The purpose of wing slats is to

- A) reduce stalling speed.
- B) decrease drag.
- C) reduce lift.

24 . AMA081

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

- A) tail into the wind.
- B) left wing into the wind.
- C) the nose into the wind.

25 . AMA091

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

- A) It disengages the engine from the main rotor when engine rpm is less than rotor rpm.
- B) It allows the engines to be started without any load from the transmission.
- C) It allows the rotors to turn slowly as the engine rpm increases.

26 . AMA091

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

- A) Altitude and pitch oscillation.
- B) Airspeed and trimmed flight.
- C) Torque and directional control.

27. AMA088

Airworthiness Directives (ADs) are designed to notify the

- A) mechanic of an approved alternate method to perform a maintenance task other than specified in the aircraft maintenance manual.
- B) aircraft owners and operators of methods, techniques, and acceptable practices for inspection and alterations of aircraft.
- C) aircraft owners and other interested persons of unsafe conditions and prescribes the condition under which the product may continue to be operated.

28. AMA097

What is the minimum amount of time to wait for tires to cool before checking tire pressure?

- A) 3 hours.
- B) 2 hours.
- C) 1 hour.

29 . AMA063

A flexible hydraulic hose identified as MIL-H-8788 will have a stripe running the length of the hose. This stripe is

- A) installed without excessive twisting.
- B) for high pressure fluids with a flexing range.
- C) suitable for a wide temperature range.

30 . AMA097

A close inspection of a fusible plug reveals the core has experienced some deformation. What is the appropriate maintenance procedure?

- A) Replace all the fusible plugs.
- B) Replace the affected fusible plugs.
- C) Replace with new wheel assembly.

31 . AMA068

When servicing an empty shock strut with fluid, the strut should be completely compressed and extended several times to ensure

- A) the piston rod and wiper are lubricated with hydraulic fluid.
- B) all excess hydraulic fluid is forced out of the strut.
- C) proper packing ring seating and removal of air bubbles.

32 . AMA069

What action should be taken whenever maintenance is performed that will affect the landing gear system performance?

- A) A test flight should be performed to conduct an operational check.
- B) A technician with an inspection authorization should perform a visual inspection.
- C) The aircraft should be placed on jacks and a retraction test should be performed.

33 . AMA068

When will a continuous horn provide a warning in the cockpit?

- A) When the throttle is retarded and gear is not down and locked.
- B) When the throttle is advanced and gear is down and locked.
- C) When the throttle is retarded and gear is down and locked.

34. AMA097

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

- A) misalignment.
- B) underinflation.
- C) overinflation.

35 . AMA065

How is it determined in a master cylinder brake system that all of the air has been purged from the system?

- A) By operating a hydraulic unit and watching the system pressure gauge for smooth, full scale deflection.
- B) By depressing the brake and noting that the brake is firm and not spongy.
- C) By measuring the amount of fluid return to the master cylinder upon brake release.

36 . AMA097

When working with high pressure, high performance tires, why is it recommended to deflate the tires when removing wheels from the axle?

- A) To relieve the strain on the wheel retaining nut and axle threads.
- B) To ensure safety in case of a defective wheel or broken tie bolts.
- C) To reduce the size of the tire for ease of removal.

37 . AMA064

Phosphate ester base hydraulic fluid is very susceptible to contamination from

- A) rapid changes in temperature.
- B) water in the atmosphere.
- C) icing conditions.

38 . AMA064

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

- A) By referring to the Pilot Operating Handbook.
- B) By consulting the aircraft's Type Certificate Data Sheet
- C) By consulting the aircraft manufacturer's service manual.

39 . AMA064

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

- A) volatility.
- B) viscosity.
- C) stability.

40 . AMA079

Pneumatic systems utilize

- A) thermal valves.
- B) relief valves.
- C) shuttle valves.

41 . AMA063

Which of the following allows fluid to flow unimpeded in one direction but prevents fluid flow in the other direction?

- A) Check valve.
- B) Sequence valve.
- C) Relief valve.

42 . AMA065

Which of the following is the most commonly used seal to prevent internal and external leakage in both directions of a hydraulic unit?

- A) O-ring.
- B) V-ring.
- C) U-ring.

43 . AMA065

To protect seals from damage when installed over a threaded section, the threaded section should be

- A) coated with a heavy grease.
- B) covered with tape.
- C) covered with a suitable sleeve.

44 . AMA011

(Refer to FAA-CT-8080-4G, Appendix 3, Figure 11.) An AN flared tube fitting is referred to in which picture?

- A) 1.
- B) 2.
- C) 3.

45 . AMA063

The unit in a hydraulic system that requires a certain action to be completed before another action can begin is called a

- A) check valve.
- B) sequence valve.
- C) snubber valve.

46 . AMA064

Which of the following safeguards ensures proper system operation and mitigates damage to non-metallic components of the hydraulic system?

- A) The manual bleed valve should be closed prior to servicing hydraulic fluid to prevent fluid loss as the cap is being removed.
- B) Before assembly of any hydraulic components, seals and gaskets should be inspected and replaced only if they show signs of wear or leakage.
- C) When adding fluid to a system, use the type specified in the aircraft manufacturer's maintenance manual or on the instruction plate affixed to the reservoir or unit being serviced.

47 . AMA080

How is the cabin pressure of an aircraft maintained in flight?

- A) By controlling the rate of the air flowing into the cabin.
- B) By inflating the door seals and recirculating the conditioned cabin air.
- C) By controlling the rate of the air flowing out of the cabin.

48 . AMA074

What is the main cause of contamination in a gaseous oxygen system?

- A) Moisture.
- B) Dust.
- C) Nitrogen.

49 . AMA080

The component that determines the pressure level in the cabin is the cabin air pressure

- A) shut-off valve.
- B) safety valve.
- C) outflow valve.

50 . AMA002

What does a steady stream of bubbles indicate when servicing a vapor cycle air conditioning system?

- A) The system is over charged.
- B) The system is properly charged.
- C) The system is under charged.

51 . AMA080

What is the purpose of pressurizing the aircraft cabin?

- A) To permit the aircraft to operate in thunderstorms
- B) To allow aircraft systems to operate properly.
- C) To make human flight possible in the hostile environment of the upper atmosphere.

52 . AMA072

Which oxygen system employs a regulator that operates only when the user inhales?

- A) Continuous-Flow System.
- B) Emergency-Flow System.
- C) Demand-Flow System.

53 . AMA074

If oxygen bottle pressure is allowed to drop below a specified minimum, it may cause

- A) the pressure reducer to fail.
- B) the automatic altitude control valve to open.
- C) moisture to collect in the bottle.

54 . AMA072

When does the diluter-demand regulator operate?

- A) When the user selects alternate oxygen.
- B) When the user selects 100% oxygen.
- C) When the user inhales.

55 . AMA063

Which of the following operating mechanisms would be found in a hydraulic pressure gauge?

- A) Bourdon tube.
- B) Pressure diaphragm.
- C) Evacuated bellows.

56 . AMA014

At sea level, when the average atmospheric pressure is 14.7 PSI, the barometric pressure is

- A) 29.92 Hg.
- B) 29.92 Mb.
- C) 1013.25 Hg.

57 . AMA036

Which of the following will cause inaccuracies in a magnetic compass that may be compensated for by an aircraft mechanic?

- A) Deviation.
- B) Current.
- C) Variation.

58 . AMA090

When installing an instrument in an aircraft, who is responsible for making sure it is properly marked?

- A) The aircraft owner or pilot.
- B) The mechanic installing the instrument.
- C) The manufacturer of the instrument.

59 . AMA090

A certificated mechanic with at least an airframe rating may perform

- A) minor internal repairs to aircraft instruments.
- B) major repairs to aircraft instruments.
- C) inspections and function checks on aircraft instruments.

60 . AMA023

Aircraft antenna must be grounded to the

- A) airframe.
- B) wing spar.
- C) bus bar.

61 . AMA086

The preferred location of an ELT is

- A) as far forward as possible but aft of the firewall.
- B) at the lowest point possible in the fuselage.
- C) as far aft as possible but forward of the empennage.

62 . AMA025

What is the primary purpose of an autopilot?

- A) To relieve the pilot of control of the aircraft during long periods of flight.
- B) To allow for longer flights and more precise courses flown by the pilot.
- C) To stabilize flight control in turbulent conditions.

63 . AMA085

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

- A) not be blanked out by the wing when the aircraft is banked.
- B) not be blanked out by the vertical stabilizer.
- C) facilitate cleaning, inspection, and maintenance.

64 . AMA023

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

- A) VOR antenna.
- B) chord line.
- C) centerline on the airplane.

65 . AMA054

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

- A) way to shut off fuel flow or to route the fuel to a desired location.
- B) place for contaminants and water to settle, with a drain valve to remove the impurities.
- C) way to manually operate valves on a fuel tank to isolate or direct fuel to a pump.

66 . AMA052

When defueling an aircraft, which of the following must be accomplished?

- A) Defuel inside the hangar when fire suppression is available.
- B) Defuel outside the hangar when possible.
- C) Always defuel outside the hangar.

67 . AMA054

Integral fuel tanks on transport aircraft are

- A) easily removed for service or inspection.
- B) constructed of plastic or fiberglass.
- C) supported by the aircraft structure.

68 . AMA052

When an aircraft is fueled from a truck or fuel farm that has not been contaminated, daily draining

- A) is not required because fuel trucks and fuel farms may make use of laser contaminant identification technology.
- B) of strainers and sumps is combined with periodic filter changes and inspection to ensure fuel is contaminant free.
- C) is only required if the fuel truck or farm has not been in continuous service.

69 . AMA052

Some turbine powered aircraft have a fuel temperature indicator located in the cockpit to

- A) monitor the fuel flow in the event that ice crystals form in the fuel system.
- B) monitor the fuel temperature during high altitude flight.
- C) ascertain the amount of fuel onboard the aircraft when ice starts to form in the fuel tanks.

70 . AMA003

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

- A) The word Avgas, the minimum fuel grade, and the total fuel tank capacity.
- B) The word Avgas, the minimum fuel grade or designation for the engines, and the usable fuel tank capacity.
- C) The word Avgas and the minimum fuel grade.

71 . AMA041

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

- A) in the tank that moves a connecting arm to the wiper on a variable resistor in the tank.
- B) attached to a rod that moves up or down in a calibrated cylinder.
- C) in the tank that operates with alternating current and uses constant resistance in a circuit to drive a ratiometer-type indicator.

72 . AMA056

What is the primary purpose of the crossfeed system?

- A) It allows any tank to supply fuel to any engine.
- B) It bypasses the engine shutoff valve if it fails.
- C) It divides the fuel and sends it to the injectors.

73 . AMA054

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 is near the fuel tank heater to help prevent vapor lock in the system.
- C) It filters and traps all microorganisms that may be present in the fuel system.

74 . AMA055

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

- A) Structural repair manual.
- B) Orthographic projection troubleshooting tree.
- C) Maintenance manual diagrams and descriptions.

75 . AMA042

How should a coaxial cable be routed?

- A) Parallel with stringers or ribs.
- B) Perpendicular to stringers or ribs.
- C) As directly as possible.

76 . AMA042

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

- A) It is easily replaced.
- B) It controls current flow.
- C) It is resettable and reusable.

77 . AMA041

What should be used to protect wires from chafing when they must pass through bulkheads, firewalls, ribs, etc.?

- A) Aerodynamic duct tape.
- B) Suitable grommet.
- C) Plastic spiral wrap.

78 . AMA042

Which of the following are considered circuit-protective devices that are used in aircraft electrical systems?

- A) Circuit breakers, relays, and current limiters.
- B) Circuit breakers, fuses, and current limiters.
- C) Circuit breakers, capacitors, and current limiters.

79 . AMA054

Where is the generator rating and performance data located?

- A) In the Pilot Operating Handbook.
- B) Stamped on the generator data plate.
- C) In the Aircraft Maintenance Manual.

80. AMA042

Electric circuits are protected from overheating by

- A) thermocouples.
- B) AN/MS connectors.
- C) fuses.

81 . AMA041

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

- A) aluminum sheets.
- B) carbon steel.
- C) stainless steel.

82 . AMA041

Electrical connectors used in the aircraft assemblies should meet which of the following specifications?

- A) Parts Manufacturer Approval (PMA).
- B) Military Specifications (MS).
- C) Society of Electrical Specifications (SES).

83 . AMA041

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) Splicing within wire bundles is not permitted.

84 . AMA041

What is the appropriate method for installing pre-insulated terminal lugs and splices to electric wires?

- A) Using a crimping tool to secure the terminal lug.
- B) Soldering the terminal lug to the end of the wire
- C) Soldering the exposed wire prior to crimping on the terminal lug.

85 . AMA068

Which of the following conditions is most likely to cause the landing gear warning signal to sound?

- A) Landing gear locked down and throttle retarded.
- B) Landing gear locked down and throttle advanced.
- C) Landing gear not locked down and throttle retarded.

86 . AMA031

An antiskid system is

- A) a hydraulic system.
- B) an electrohydraulic system.
- C) an electrical system.

87 . AMA031

An antiskid system is designed to

- A) solely sense the deceleration rate of every main landing gear wheel.
- B) release then reapply pressure at a slightly lower value when a skid is detected only.
- C) sense the deceleration rate of every main landing gear wheel and release then reapply pressure at a slightly lower value when a skid is detected.

88 . AMA068

Landing gear warning systems usually provide which of the following indications?

- A) Red light for unsafe gear; green light for gear up.
- B) Green light for gear up and down; red light for unsafe gear.
- C) Red light for unsafe gear; green light for gear down; no light for gear up.

89 . AMA032

Antiskid braking systems are generally armed by

- A) the application of brakes.
- B) a switch in the cockpit.
- C) the rotation of the wheels above a certain speed.

90 . AMA041

Where are the heating elements located on most aircraft with electrically heated windshields?

- A) Laminated in the glass.
- B) Attached to the glass.
- C) Inside the windshield frame.

91 . AMA033

What system component aids in the prevention of carburetor icing?

- A) Alcohol injection nozzle.
- B) Bleed air valve.
- C) Air diverter butterfly.

92 . AMA041

What maintains normal windshield temperature control in an electrically heated windshield system?

- A) Thermal overheat switches.
- B) Thermistors.
- C) Manually-controlled rheostat.

93 . AMA020

Prior to installation of a pneumatic surface-bonded type deicer boots, on the leading edge of the wing, you should

- A) remove all paint from the area to be covered by the deicer boot.
- B) clean the surface with MEK and apply adhesive to the back of the deicer boot and leading edge of the wing.
- C) rough the surface with a mild abrasive.

94 . AMA046

In what areas of aircraft would you find a carbon monoxide detector?

- A) Cargo and baggage compartment.
- B) Cabin and cockpit.
- C) Lavatory and engine nacelle.

95 . AMA047

Maintenance of fire detection systems includes the

- A) repair of damaged sensing elements.
- B) servicing pressure type responder system.
- C) replacement of damaged sensing elements.

96 . AMA046

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

- A) cleaning the indicating element with soap and water.
- B) removing the indicating element and installing a new indicating element.
- C) removing the indicating element from the exposed area for 24 hours.

97 . AMA095

Smoke detectors that use a measurement of light transmissibility in the air are called

- A) thermocouple devices.
- B) photoelectrical devices.
- C) ultraviolet optical devices.