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The following sample questions for Aviation Maintenance Technician General (AMG) are suitable study material to satisfy the general portion of the Aviation Maintenance Technician test. These questions are a representation of questions that can be found on the AMG 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 AMG test contains 60 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_aks.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.

AMG Sample Questions:

1 . AMG031

The opposition offered by a coil to the flow of alternating current is called (disregard resistance)

- A) impedance.
- B) reluctance.
- C) inductive reactance.

2 . AMG015

What is the operating resistance of a 30-watt light bulb designed for a 28-volt system?

- A) 1.07 ohms.
- B) 26 ohms.
- C) 0.93 ohm.

3 . AMG031

Which of the following is commonly used as a rectifier in electrical circuits?

- A) Anodes.
- B) Cathodes.
- C) Diodes.

4 . AMG042

Through which material will magnetic lines of force pass the most readily?

- A) Copper.
- B) Iron.
- C) Aluminum.

5 . AMG015

A 48-volt source is required to furnish 192 watts to a parallel circuit consisting of three resistors of equal value. What is the value of each resistor?

- A) 36 ohms.
- B) 4 ohms.
- C) 12 ohms.

6 . AMG015

When referencing resistance in a parallel DC circuit, which of the following statements is true?

- A) The current is equal in all portions of the circuit.
- B) The total current is equal to the sum of the currents through the individual branches of the circuit.
- C) The current in amperes can be found by dividing the source voltage in volts by the sum of the resistors in ohms.

7 . AMG031

If each cell, connected in series, equals 2 volts, how would a 12-cell lead acid battery be rated?

- A) 24 volts.
- B) 12 volts.
- C) 6 volts.

8 . AMG102

What is the opposition to the flow of AC produced by a magnetic field with generated back voltage (EMF) called?

- A) Inductive reactance.
- B) Capacitive reactance.
- C) Mutual inductance.

9 . AMG015

What is the likely result of servicing and charging nickel-cadmium and lead acid batteries together in the same service area?

- A) The electrolytes in each battery are the same, so there are no significant differences.
- B) The nickel-cadmium would not be affected but the lead acid battery could become contaminated.
- C) Contamination of both types of batteries.

10 . AMG031

During discharge, nickel-cadmium batteries will show a lower liquid level than when at full charge because

- A) a chemical action causes the electrolyte to evaporate through the vents.
- B) current leakage from individual cells causes a rise in temperature.
- C) the electrolyte becomes absorbed into the plates.

11 . AMG015

What will a voltmeter read if properly connected across a closed switch in a circuit with electrical power on?

- A) Voltage drop in the component(s) the switch is connected to.
- B) System voltage.
- C) Zero voltage.

12 . AMG031

What does the letter Q symbolize when measuring electrical charge?

- A) Farad.
- B) Electron.
- C) Coulomb.

13 . AMG031

Convert the binary number 00001111 to a whole number.

- A) 31.
- B) 15.
- C) 8.

14 . AMG015

(Refer to FAA-CT-8080-4G, Appendix 1, Figure 19.) When the throttles are retarded with only the right gear down, the warning horn will not sound if an open occurs in wire

- A) No. 6.
- B) No. 5.
- C) No. 13.

15 . AMG102

In a parallel circuit with four 6-ohms resistors across a 24-volt battery, what is the total voltage across resistor-three (VR3) in the circuit?

- A) 6 volts.
- B) 18 volts.
- C) 24 volts.

16 . AMG102

In a parallel circuit with three 6-ohm resistors across a 12-volt battery, what is the total current (It) value in the circuit?

- A) 2 amps.
- B) 6 amps.
- C) 12 amps.

17 . AMG014

What type of drawing line consists of alternating long and short lines?

- A) Dimension.
- B) Center.
- C) Hidden.

18 . AMG014

In order to locate wing and stabilizer frames, what numbering system is used?

- A) Dimension numbers.
- B) Station numbers.
- C) Scale numbers.

19 . AMG013

In a sectional view drawing, what sections illustrate particular parts of an object?

- A) Removed.
- B) Revolved.
- C) Half.

20 . AMG014

What type of line is normally used in a mechanical drawing or blueprint that indicates invisible edges or contours?

- A) Medium weight short dashes evenly spaced.
- B) Medium weight very short dashes even spaced.
- C) Thin weight one long and two short dashes evenly spaced.

21 . AMG014

What is used to indicate that a surface must be machine finished?

- A) Text.
- B) Leader lines.
- C) Finished marks.

22 . AMG002

When calculating the new weight and balance for an aircraft, what is used to determine the operating CG range?

- A) The data plate.
- B) The type certificate data sheets.
- C) The pilot information manual.

23 . AMG002

If an aircraft CG is found to be at "24 percent" of MAC, that "24 percent" is an expression of the

- A) distance from the TEMAC.
- B) distance from the LEMAC.
- C) distance from the Datum.

24 . AMG002

What determines whether the value of a moment is preceded by a plus (+) or a minus (-) sign in aircraft weight and balance?

- A) The location of the weight in reference to the datum.
- B) The location of a weight relative to the datum and if it is being removed or added.
- C) The location of the datum in reference to the aircraft CG.

25 . AMG002

Which statement is true regarding helicopter weight and balance?

- A) Lateral axis CG control is not a factor in maintaining helicopter weight and balance.
- B) The moment of tail-mounted components is subject to constant change.
- C) Weight and balance procedures for airplanes generally also apply to helicopters.

26 . AMG002

Which of the following may cause erroneous scale readings?

following may cause erroneous scale readings?

- A) Wheel chocks in place.
- B) Parking brakes set.
- C) Parking brakes not set.

27 . AMG003

What is meant by the term "residual fuel"?

- A) A known amount of fuel left in the tanks, lines, and engine.
- B) The fuel remaining in the tanks, lines, and engine after draining.
- C) The fuel remaining in the tank, lines, and engine before draining.

28 . AMG002

Which device(s) is/are used to obtain the greatest accuracy aircraft leveling?

- A) Electronic load cells.
- B) Spirit level.
- C) Plumb bob and chalk line.

29 . AMG017

Military Standard (MS) flareless fittings during installation

- A) are normally tightened by turning the nut a specified amount, rather than being torqued.
- B) should be assembled clean and dry without lubrication.
- C) are normally tightened by applying a specified torque to the nut.

30 . AMG036

If a flared tube coupling nut is overtightened, where is the tube most likely to be weakened/damaged?

- A) Along the entire length of the sleeve and tube interface.
- B) At the edge of the sleeve and straight portion of the tube.
- C) At the sleeve, fitting nut, or completely cut off the tube flare.

31 . AMG036

Which statement is true regarding flattening of tubing in bends?

- A) The small diameter of the flattened portion must not be less than 65 percent of the original outside diameter.
- B) The small diameter of the flattened portion must not be less than 75 percent of the original outside diameter.
- C) The small diameter portion in the bend cannot exceed more than 75 percent of the diameter of straight tubing.

32 . AMG036

Which of the following tools is best to use when cutting soft metal or aluminum tubing?

- A) Hand operated wheel-type tubing cutter.
- B) Fine-tooth hacksaw.
- C) Circular-saw equipped with an abrasive cutting wheel.

33 . AMG066

What does the acronym TSO mean regarding a type certificated aircraft part, material, component and/or process?

- A) Training Specific Organization.
- B) Type Supplement Original.
- C) Technical Standard Order.

34 . AMG017

Self-locking nuts may be used on aircraft provided that

- A) the head of the bolt is safety wired.
- B) it is installed with a lock washer.
- C) the bolt or nut is not subject to rotation.

35 . AMG017

When installing a castle nut and the nut castellation does not align with the cotter pin hole in the bolt within the torque range, the acceptable practice is to

- A) back nut off and align to the nearest hole.
- B) continue tightening to next hole.
- C) change nut or washer and try again.

36 . AMG017

Torque values for aircraft bolts normally consider

- A) the threads to be clean and dry.
- B) tightening the bolt head.
- C) lubricating the threads.

37 . AMG020

What is generally used in the construction of aircraft exhaust collectors, stacks, and manifolds?

- A) Stainless steel.
- B) Titanium.
- C) Aluminum.

38 . AMG066

A Technical Standard Order (TSO) is issued by whom?

- A) The aircraft industry.
- B) Part manufacturers.
- C) The Administrator.

39 . AMG045

If a radial engine has been shut down for more than 30 minutes, the propeller should be rotated through at least two revolutions to

- A) check for hydraulic lock.
- B) check for vapor lock.
- C) check that the starter is disengaged.

40 . AMG095

During starting of a turbine powerplant using a compressed air starter, a hung start occurred. Select the proper procedure.

- A) Shut off the fuel.
- B) Re-engage the starter.
- C) Shut the engine down.

41 . AMG094

During starting procedures for a maintenance run, you should

- A) discontinue the start attempt and allow the fireguard to extinguish the fire.
- B) continue cranking to start the engine and blow out the fire.
- C) continue cranking and allow the fireguard to extinguish the fire.

42 . AMG057

Examples of units used in the conventional (U.S. or English) measurement include

- A) inch, meter, gram.
- B) inch, kilo, liter.
- C) inch, ounce, pounds.

43 . AMG044

A rectangular shaped fuel tank measures 37-1/2 inches in length, 14 inches in width, and 8-1/4 inches in depth. How many cubic inches are within the tank?

- A) 59.75
- B) 433.125
- C) 4,331.25

44 . AMG044

The total piston displacement of a reciprocating engine is

- A) the volume displaced by only one piston during one-half revolution of the crankshaft.
- B) the volume displaced by all the pistons during one revolution of the crankshaft.
- C) the volume displaced by all the pistons during two revolutions of the crankshaft.

45 . AMG053

(Refer to FAA-CT-8080-4G, Appendix 1, Figure 66.) Solve the equation.

- A) 26,998
- B) 36,002
- C) 62,208

46 . AMG053

Find the cube of 64.

- A) 4096
- B) 4.000
- C) 262,144.

47 . AMG053

What is the speed ratio of an input gear with 36 teeth meshed to a gear with 20 teeth?

- A) 9:5
- B) 1:0.56
- C) 1:1.8

48 . AMG077

An aircraft was not approved for return to service after an annual inspection and the owner wanted to fly the aircraft to another maintenance base. Which statement is correct?

- A) The owner must obtain a special flight permit.
- B) The aircraft may fly without restriction up to 10 hours.
- C) The owner may fly in the restricted category up to 10 hours.

49 . AMG055

A hydraulic system has an input piston with an area of $1/3\text{-in}^2$ and an output piston with an area of 15-in^2 . If an input force of 30 lbs is applied and the input piston moves 20 inches, how far would the output piston move?

- A) 3.33 inches.
- B) 0.333 inches.
- C) 33.3 inches.

50 . AMG007

The main rotor system on a helicopter is classified in three groups. Which of those listed is not one of these groups?

- A) The fully articulated rotor system.
- B) The flexible-beam rotor system.
- C) The semi-rigid rotor system.

51 . AMG007

Which of the following statements is correct?

- A) When the cyclic pitch control lever is raised, the blade angle of all the rotor blades increases uniformly and they create the lift that allows the helicopter to take off vertically.
- B) When the collective pitch control lever is raised, the blade angle of all the rotor blades increases uniformly and they create the lift that allows the helicopter to take off vertically.
- C) When the collective pitch control lever is raised, the blade angle of the aft rotor blades decreases uniformly and they create the lift that allows the helicopter to take off vertically.

52 . AMG099

Which of the following is Newton's First Law of Motion, generally termed the Law of Inertia?

- A) To every action there is an equal and opposite reaction, if a force is applied to an object, the object will supply a resistive force exactly equal to and in the opposite direction of the force applied.
- B) Force is proportional to the product of mass and acceleration, when a force acts upon a body, the momentum of that body is changed.
- C) Objects at rest tend to remain at rest and objects in motion tend to remain in motion at the same speed and in the same direction, unless acted on by an external force.

53 . AMG025

When an aircraft is sold, the Airworthiness Certificate

- A) must be surrendered to the local Flight Standard District Office.
- B) becomes invalid until the new owner makes application for a new Airworthiness Certificate.
- C) is transferred with the aircraft at the time of sale.

54 . AMG063

A person installing a product, part, or appliance on a type certificated product must make certain that the item's records document

- A) the product, part, or material meets FAA airworthiness standards.
- B) the source from which the part came.
- C) the product or material was not produced under an FAA production approval.

55 . AMG082

14 CFR part 65 subpart D contains regulations regarding the certification of

- A) repairmen.
- B) pilots.
- C) mechanics.

56 . AMG082

14 CFR part 65 contains regulations regarding the certification of

- A) pilots, flight instructors, and ground instructors.
- B) airmen other than flight crewmembers.
- C) flight crewmembers other than pilots.

57 . AMG082

How long is a mechanic certificate with airframe and /or powerplant rating(s) valid?

- A) Until the holder is relieved of duties for which the holder was employed and certificated.
- B) Until voluntarily surrendered, permanently revoked, or temporarily suspended.
- C) 24 months after the holder has last exercised the privileges of the certificate.

58 . AMG067

How long does the holder of a certificate issued under 14 CFR part 65 have to notify the FAA after any change in permanent mailing address?

- A) 30 days.
- B) 90 days.
- C) 120 days.

59 . AMG107

According to Dr. James Reasons, what are the two types of human failure that can occur?

- A) Active and latent.
- B) Mental and physical
- C) Proper and improper.

60 . AMG107

When we think of aviation safety in a contemporary way, human error is

- A) the starting point.
- B) the ending point.
- C) the intervention point.