SAMPLE QUESTIONS  AME LICENCE EXAMINATION

PAPER -1( Aircraft Rules & Regulations)

1. “Temporary Aerodrome” means an aerodrome intended to be used for
   1. a period not exceeding three months
   2. a period not exceeding six months
   3. a period as specified by DGCA
   4. a period as specified by Airports Authority of India

   Ans: 2

2. Temporary certificate of Registration is issued
   1. For importing an aircraft by air
   2. As in (1) and it is valid only Upto the period approved by the country of export
   3. When lease period of aircraft lapsed
   4. As in (1) and shall be valid only until the first landing of the aircraft at a custom aerodrome in India

   Ans: 4

3. Which of the following defines human factors?
   1. It is the study of how people interact with their environment
   2. These are elements that affect our behavior and performance, especially those that may cause us to make errors
   3. It is concerned with optimizing performance including reducing errors so that the highest level of safety is achieved and maintained
   4. All the above

   Ans: 4

4. DGCA may permit import of unpressurised aircraft of more than 20 years of age for the purpose of flying training operations, subject to the condition
   1. The aircraft will be imported with new or overhauled components including engines
   2. The aircraft will has been operated less than 20,000 hours prior to import
   3. The aircraft will have a valid certificate of Airworthiness and all components of the aircraft will be within their stipulated overhaul life
   4. All the above are correct

   Ans: 3
5. Mark the correct statement related to CAR -21
   1. It prescribe procedural requirements for issue of type certificate issue of C of A, issue of noise certificate and issue of Export C of A
   2. It covers matters related to design, manufacture and all other issues related to Airworthiness including continued airworthiness, repairs etc
   3. It contains requirements for approval of design and production organisation as per the provision of Aircraft Rule 133B
   4. All the above are correct

   Ans: 4

6. Mark the correct statement related to classification of Group for supplemental type certificate (STC) cases under CAR 21
   1. Conversion to tail wheel configuration is the kind of STC which comes under group 1
   2. Fairings, nacelle, landing Gear the kind of STC which comes under group 2
   3. Gap seals, aileron, flap, empennage, doors are the kind of STC which come under group 2
   4. All the above are correct

   Ans: 4

7. Under CAR 145, the Accountable Manager of the organization shall appoint
   1. Maintenance Manager
   2. Certifying Staff
   3. Person with responsibility for monitoring the quality system
   4. All the above are correct

   Ans: 3

8. An application for the issue or variation of an approval under CAR -145, shall be made to DGCA in a form prescribed is –
   1. CA Form 1
   2. CA Form 2
   3. CA Form 3
   4. CA Form 4

   Ans: 2
9. Approval procedure for continuous Airworthiness Management Organization covered in
   1. CAR M, Sub Part ‘G’
   2. CAR M, Sub Part ‘I’
   3. CAR 21, Sub Part ‘G’
   4. CAR Section 2 Series ‘E’

   Ans: 4

10. The maintenance of the aircraft is required to be performed in accordance with the approved
    Maintenance Programme. Who is accountable for such activity?
    1. The owner of the aircraft
    2. The Lessee in case of leased aircraft and detailed in the Leasing contract
    3. The owner / operator of the aircraft
    4. All the above

   Ans: 4

Paper - 2 (General Engineering & Maintenance Practices)

11. A cylindrical wire, 1 m in length has a resistance of 100 ohms. What would be the resistance of the wire made from same material if both the length and the cross sectional area are doubled –
    1. 200 ohms
    2. 400 ohms
    3. 100 ohms
    4. 50 ohms

   Ans: 3

12. What type of flap system increases the wing area and changes the wing camber:
    1. Fowler Flap
    2. Slotted Flap
    3. Split Flap
    4. Plain Flap

   Ans: 1
13. Aircraft bolts with a asterisk marked on the bolt head are -
   1. Made of aluminum alloy
   2. Close tolerance bolts
   3. AN Standard steel bolts
   4. Low strength material bolts
   Ans: 3

14. The process of adding impurities to a pure semiconductor is called:
   1. Mixing
   2. Doping
   3. Defusing
   4. Refining
   Ans: 2

15. The unit of Electric Intensity is:
   1. Joule/Coulomb
   2. Newton/Coulomb
   3. Volt/metre
   4. Both (2) and (3) are correct
   Ans: 4

16. Fretting corrosion is most likely to occur -
   1. When two surfaces fit together but can move relative to one another
   2. Only when two dissimilar metals are in contact
   3. When two surfaces fit loosely together and can move relative to one another
   4. All the above are correct
   Ans: 1

17. Which tool is used to find the center of a shaft or other cylindrical work -
   1. Combination set
   2. Dial indicator
   3. Micrometer caliper
   4. All are correct
   Ans: 1
SAMPLE QUESTIONS  AME LICENCE EXAMINATION

18. While jacking one wheel of an aircraft
   1. Tripod-type jack is used
   2. Aircraft should be raised 6" to 8" above the ground
   3. The remaining wheel should be chocked properly
   4. All are correct

   Ans: 3

19. Oxygen and acetylene cylinders are made of :
   1. Heat treated seamless copper
   2. Seamless Aluminum
   3. Steel
   4. Bronze

   Ans: 3

20. The only function of a NOT gate is to
   1. Stop a signal
   2. Re-complement a signal
   3. Invert an input signal
   4. Act as a universal gate

   Ans: 3

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Paper – 3 CT (Turbine Engine)

21. The function of the nozzle diaphragm in a turbine engine is to -
   1. Decrease the velocity of exhaust gases
   2. Center the fuel spray in the combustion chamber
   3. Swirl and collect and exhaust gases into a single exhaust jet
   4. Direct the flow of gases to strike the turbine blades at a desired angle

   Ans: 4

22. Where is the highest gas pressure in a turbojet engine -
   1. At the outlet of the tailpipe section
   2. At the entrance of the turbine section
   3. In the entrance of the burner section
   4. At the inlet of the tailpipe section

   Ans: 3
SAMPLE QUESTIONS  AME LICENCE EXAMINATION

23. An advantage of the axial – flow compressor is its-
   1. Low starting power requirement
   2. Less vibration on the engine
   3. Low weight
   4. High peak efficiency

Ans: 4

24. Which of the following are used in turbine engines to aid in stabilization of compressor airflow during operation:-
   1. Stator vanes
   2. Variable guide vanes and / or compressor bleed valves
   3. Pressurization and dump valves
   4. Rotor vanes

Ans: 2

25. Engine pressure ratio is determined by-
   1. Multiplying engine inlet total pressure by turbine outlet total pressure
   2. Dividing turbine outlet total pressure by engine inlet total pressure
   3. Dividing engine inlet total pressure by turbine outlet total pressure
   4. Multiplying engine outlet total pressure by turbine inlet total pressure

Ans: 2

26. The velocity of subsonic air as it flows through a convergent nozzle:-
   1. Increases
   2. Decreases
   3. Remains constant

Ans: 1

27. When starting turbine engine, a hung start is indicated if the engine:-
   1. Exhaust gas temperature exceeds specified limits
   2. Fails to reach idle RPM
   3. RPM exceeds specified operating speed
   4. Oil temperature exceeds specified limit

Ans: 2
SAMPLE QUESTIONS AME LICENCE EXAMINATION

28. Jet engine thermocouples are usually constructed of:
   1. Chromel - Alumel
   2. Iron – constantan
   3. Alumel - constantan
   4. Chromel - Constantan

   Ans: 1

29. In what units are turbine engine tachometers calibrated?
   1. Percent of engine RPM
   2. Actual engine RPM
   3. Percent of engine pressure ratio

   Ans: 1

30. Severe rubbing of turbine engine compressor blades will usually cause:-
   1. Bowing
   2. Cracking
   3. Galling
   4. (1) and (3) are correct

   Ans: 3

31. Some cylinder barrels are hardened by :
   1. Nitriding
   2. Shot peening
   3. Tempering
   4. Carburizing

   Ans: 1
32. The purpose of two or more valve springs in aircraft piston engines is to:
   1. Equalize side pressure on the valve stems
   2. Eliminate valve spring surge
   3. Equalize valve face loading
   4. All are correct

   Ans: 2

33. Which of the following bearing types must be continuously lubricated by pressure oil?
   1. Ball
   2. Roller
   3. Plain
   4. (1) and (2) are correct

   Ans: 3

34. A piston engine designated as LYC O-235 –X. What does 235 indicates?
   1. The total piston displacement of the engine
   2. The piston will pump a maximum of 235 cubic inches of air per crank shaft revolution
   3. The total piston displacement of one cylinder

   Ans: 1

35. The horsepower developed in the cylinders of a reciprocating engine is known as the:
   1. Shaft horsepower
   2. Indicated horsepower
   3. Brake horsepower

   Ans: 2

36. Which of the following results in a decrease in volumetric efficiency?
   1. Cylinder head temperature too low
   2. Part-throttle operation
   3. Short intake pipes of large diameter

   Ans: 2
37. What is the purpose of power check on a reciprocating engine?
1. To determine satisfactory performance
2. To check magneto drop
3. To determine if the fuel /air mixture is adequate
4. To check valve timing

Ans: 1

38. Excessive valve clearance results in the valves opening:
1. Late and closing early
2. Early and closing late
3. Late and closing late
4. Early and closing early

Ans: 1

39. Engine oil temperature gauges indicate the temperature of the oil:
1. Entering the oil cooler
2. Entering the engine
3. in the oil storage tank
4. After passing oil cooler

Ans: 2

40. Engine operating flexibility is the ability of the engine to:
1. Deliver maximum horsepower at specific altitude
2. Meet exacting requirements of efficiency and low weight per horsepower ratio
3. Run smoothly and give the desired performance at all speeds
4. All the above are correct

Ans: 3
41. The vertical flight of a helicopter is controlled by:
   1. Collective pitch changes
   2. Cyclic pitch changes
   3. Increasing or decreasing the RPM of the main rotor

   Ans: 1

42. The purpose in checking main rotor blade tracking is to determine the:
   1. Relative position of the blades during rotation
   2. Flight path of the blades during rotation
   3. Extent of an out of balance condition during rotation

   Ans: 1

43. One purpose of the freewheeling unit required between the engine and the helicopter transmission is to:
   1. Automatically disengage the rotor from the engine in case of an engine failure
   2. Disconnect the rotor from the engine to relieve the starter load
   3. Permit practice of autorotation landings

   Ans: 1

44. When inspecting a control cable turnbuckle for proper installation, determine that:
   1. No more than four threads are exposed on either side of the turnbuckle barrel
   2. The terminal end threads are visible through the safety hole in the barrel
   3. The safety wire ends are wrapped a minimum of four turns around the terminal end shanks

   Ans: 3

45. The blade alignment of an helicopter is referred as:
   1. Chord wise balance
   2. Static balance
   3. Dynamic balance

   Ans: 1
46. An O-ring intended for use in a hydraulic system using MIL-H-5606 (mineral base) fluid will be marked with
   1. A blue stripe or dot
   2. One or more white dots
   3. A white and yellow stripe

   Ans: 1

47. An aircraft instrument panel is electrically bonded to the aircraft structure to
   1. Act as a restraint strap
   2. Provide current return paths
   3. Aid in the panel installation

   Ans: 2

48. During inspection of the terminal strips of an aircraft electrical system, it should be determined that:
   1. Only locknuts have been used for terminal attachment to the studs
   2. The terminal studs are anchored against rotation
   3. Only plain nuts and lockwashers have been used for terminal attachment to the studs

   Ans: 2

49. A voltage regulator controls generator voltage by changing the:
   1. Resistance in the generator output circuit
   2. Current in the generator output circuit
   3. Resistance of the generator field circuit

   Ans: 3

50. Movement about the longitudinal axis (roll) in a helicopter is effected by movement of:
   1. The drag hinge damper control
   2. The collective pitch control
   3. The cyclic pitch control
   4. The tail rotor pitch control

   Ans: 3
51. An aeroplane wing is designed to produce lift resulting from relatively:
   1. Positive air pressure below and above the wings surface
   2. Negative air pressure below the wings surface and positive air pressure above the wing surface
   3. Positive air pressure below the wings surface and negative air pressure above the wing surface
   4. Angle of attack and wind velocity

   Ans: 3

52. What is the minimum spacing for a single row of aircraft rivets?
   1. Two times the diameter of the rivet shank
   2. Three times the length of the rivet shank
   3. Three times the diameter of the rivet shank

   Ans: 3

53. What type of loads cause the most rivet failures?
   1. Shear
   2. Bearing
   3. Head

   Ans: 1

54. In gas welding, the amount of heat applied to the material being welded is controlled by the:
   1. Amount of gas pressure used
   2. Size of the tip opening
   3. Distance the tip is held from the work

   Ans: 2

55. In a gear-type hydraulic pump, a mechanical safety device incorporated to protect the pump from overload is the:
   1. Bypass valve
   2. Check valve
   3. Shear pin

   Ans: 3
56. A turn coordinator instrument indicates:
1. The longitudinal attitude of the aircraft during climb and descent
2. The need for corrections in pitch and bank
3. Both roll and yaw

Ans: 3

57. An aircraft’s integral fuel tank is:
1. Usually located in the bottom of the fuselage
2. A part of the aircraft structure
3. A self-sealing tank

Ans: 2

58. Where is the buttock line or buttline of an aircraft?
1. A height measurement left or right of, and perpendicular to the horizontal centerline
2. A width measurement left of, and perpendicular to the vertical centerline
3. A width measurement left or right of, and parallel to the vertical centerline

Ans: 3

59. Movement of an airplane along its lateral axis (roll) is also movement:
1. Around or about the longitudinal axis controlled by the elevator
2. Around or about the lateral axis controlled by the ailerons
3. Around or about the longitudinal axis controlled by the ailerons

Ans: 3

60. The rust or corrosion that occurs with most metals is the result of:
1. A tendency for them to return to their natural state
2. Blocking the flow of electrons in homogenous metal, or between dissimilar metals
3. Electron flow in or between metals from cathodic to anodic areas

Ans: 2
SAMPLE QUESTIONS AME LICENCE EXAMINATION

Paper – 3 HA (Heavy Aeroplane)

61. Which of the following describe the effects of annealing steel and aluminum alloys?
   A. Decrease in internal stress
   B. Softening of the metal
   C. Improved corrosion resistance

   1. A and B
   2. A and C
   3. B and C

   Ans: 1

62. Which material cannot be heat treated repeatedly without harmful effects?
   1. Unclad aluminum alloy in sheet form
   2. 6061-T9 stainless steel
   3. Clad aluminum alloy

   Ans: 3

63. The vast majority of aircraft control cables are terminated with swaged terminals that must be
    1. Corrosion treated to show compliance with the manufacturer’s requirements after the swaging operation
    2. Pull tested to show compliance with the manufacturer’s requirements after the swaging operation
    3. Checked with a go-no-go gauge before and after, to show compliance with the manufacturer’s requirements after the swaging operation

   Ans: 3

64. Internal leakage in a brake master cylinder unit can cause
    1. Fading brakes
    2. Slow release of brakes
    3. The pedal to slowly creep down while pedal pressure is applied

   Ans: 3
65. Exposure of honeycomb structures to sonic vibrations usually causes:
   1. Delaminations
   2. Radiographic corrosion
   3. Aerodynamic smoothness
   4. Punctures

   Ans: 1

66. An airplane which has good longitudinal stability should have a minimum tendency to:
   1. Roll
   2. Pitch
   3. Yaw
   4. Stall

   Ans: 2

67. Which statement regarding an aircraft instrument vacuum system is true?
   1. Dry-type vacuum pumps with carbon vanes are very susceptible to damage from solid airborne particles and must take in only filtered air
   2. Vacuum systems are generally more effective at high altitudes than positive pressure systems
   3. A restrictor valve is generally installed in the air-inlet line of the attitude indicator (artificial horizon)
   4. If the air inlet to each vacuum instrument is connected to a common atmospheric pressure manifold, the system generally will be equipped with individual instrument filters only

   Ans: 1

68. What unit is generally used to actuate the fuel pressure warning system?
   1. Fuel flowmeter
   2. Pressure-sensitive mechanism
   3. Engine fuel pump bypass valve
   4. Fuel pressure gauge

   Ans: 2
69. Smoke in the cargo and/or baggage compartment of an aircraft is commonly detected by which instrument?
   1. Visual scanner
   2. Chemical reactor
   3. Photoelectric cell
   4. Sniffer
   Ans: 3

70. In the diluter-demand oxygen regulator, when does the demand valve operate?
   1. When the diluter control is set at normal
   2. When the user demands 100 percent oxygen
   3. When the user breathes
   4. When the cylinder pressure is over 500 PSI
   Ans: 3

71. ELT frequencies are
   1. 121.5 MHz, 243.5 MHz
   2. 121.0 MHz, 242.00 MHz and 408 MHz
   3. 121.5 MHz, 243.00 MHz
   4. 121.0 MHz, 243.5 MHz and 407.5 MHz
   Ans: 3

72. Microphone is essentially an:
   1. Energy converter
   2. Power converter
   3. Energy converter changes sound energy into corresponding electrical energy
   Ans: 3
SAMPLE QUESTIONS AME LICENCE EXAMINATION

73. Transmitters of a high frequency communication system have:
   1. Higher power outputs
   2. Lower power outputs
   3. Intermediate power outputs
   4. None of the above is correct

   Ans: 1

74. Doppler navigational radar displays:
   1. Wide beam of energy
   2. Drift angle of an aircraft in flight
   3. Ground speed
   4. Both (2) and (3) are correct

   Ans: 4

75. Long Range Navigation (LORAN) systems determine aircraft location by:
   1. Measuring the inertial forces acting on the aircraft
   2. Means of pulsed signals transmitted from ground stations
   3. Means of signals transmitted to and from navigational satellites

   Ans: 2

76. Radio Altimeter system is used to measure:
   1. Vertical distance or altitude of aircraft from ground to any range
   2. Slant distance of aircraft from ground
   3. Height of aircraft from the ground
   4. Height of aircraft from the ground to Max range of 1000 feet

   Ans: 3

77. Part of ADF system used on aircraft includes
   1. Sense and loop antennas
   2. RMI Indicator antenna
   3. Marker beacon antenna
   4. None of above is correct

   Ans: 1
78. Marker beacon transmitter operates on frequency of:
   1. 175 MHz
   2. 75 MHz
   3. 75 kHz
   4. 175 kHz
   Ans: 2

79. Receiving frequencies of DME (Distance Measuring Equipment) is in frequency range of:
   1. 960 - 1213 MHz
   2. 1025 - 1149 MHz
   3. 962 - 1160 MHz
   4. 1020 - 1213 MHz
   Ans: 2

80. VHF radio signals are commonly used in
   1. Both VOR Navigation and ATC communications
   2. ATC communications only
   3. VOR Navigation only
   Ans: 1

81. Altimeter will read ‘altitude’, above sea level on landing and takeoff when ever its pressure scale setting is set at:
   1. QFE
   2. QNH
   3. QNE
   4. All the above are correct
   Ans: 2
82. The horizontal angle contained between the true and the magnetic meridian at any place is known as
1. Deviation
2. Magnetic dip
3. Magnetic variation
4. All the above are correct

Ans: 3

83. Mark the correct possible modes of displaying information of EICAS display
1. Operational
2. Status
3. Maintenance
4. All the above are correct

Ans: 4

84. In which control element of an autopilot system is an attitude indicator?
1. Command
2. Sensing
3. Computer
4. Input

Ans: 2

85. The liquid in the compass bowl:
1. Reinforces the magnetic field of the bar magnet
2. Dampens the oscillations of the float
3. Helps in uniform light distribution throughout the compass dial
4. Renders stability to the bar magnets

Ans: 2
86. The cold junction compensation of thermocouple is performed by
   1. Bi-metallic spring connected to the indicator mechanism
   2. Thermistors used in transmitters
   3. Magnetic strip clamped across permanent magnet of transmitter
   4. All the above are correct

   Ans: 1

87. In a gyro horizon, the erection errors are compensated by
   1. Inclined spin axis
   2. Erection cut out
   3. Pitch bank erection
   4. All the above are correct

   Ans: 4

88. Aircraft Instruments should be marked and graduated in accordance with:
   1. The instrument manufacturer’s specifications
   2. The specific engine manufacturer’s specifications
   3. Both the aircraft and engine manufacturer’s specifications
   4. The specific aircraft maintenance or flight manual

   Ans: 4

89. Chemical oxygen generator
   1. Does not operate with actual flame
   2. The surface on which the reaction occurs operate at high temperature
   3. Supply will not deplete until used
   4. All the above are correct

   Ans: 4

90. Fuel flow transmitters are designed to transmit data:
   1. Mechanically
   2. Electrically
   3. Utilizing fluid power

   Ans: 2
SAMPLE QUESTIONS  AME LICENCE EXAMINATION

Paper – 3 ES (Electrical Systems)

91. The capacity of a battery (Ni-Cd)
   1. Is measured in Kilovolt amperes
   2. Is measured in ampere hours
   3. Is based on minimum current which it delivers for a known period
   4. Both (1) and (3) are correct

   Ans: 2

92. The frequency of voltage generated by an alternator having 4 poles and rotating at 1800 rpm is:
   1. 60 hertz
   2. 7200 hertz
   3. 120 hertz
   4. 450 hertz

   Ans: 1

93. An auto transformer is essentially a transformer
   1. Where primary and secondary are not electrically isolated
   2. Which is Current Transformer
   3. Has Single winding
   4. Both (1) and (3) are correct

   Ans: 4

94. The period during which current and voltage changes take place in a circuit is called:
   1. Varying
   2. Permanent
   3. Transient
   4. Steady

   Ans: 3
95. Mark the correct statement for shaded pole Induction Motor
1. Rotor rotates from shaded part to unshaded part
2. Rotor rotates from unshaded part to shaded part
3. As in (1) and has low starting torque
4. As in (2) and has high starting torque

Ans: 2

96. Advantage of photo diode over photo transistor is
1. Greater sensitivity
2. Faster switching
3. High current capacity
4. All the above are correct

Ans: 2

97. In an AC circuit, the effective voltage is:
1. Equal to the maximum instantaneous voltage
2. Greater than the maximum instantaneous voltage
3. Less than the maximum instantaneous voltage

Ans: 3

98. Gross mechanical power developed by the motor is maximum when
1. Back EMF is maximum
2. Back EMF is half of the applied voltage
3. Back EMF is equal to applied voltage
4. None of the above is correct

Ans: 2
SAMPLE QUESTIONS AME LICENCE EXAMINATION

99. Maximum torque developed by an induction motor:
1. Is independent of rotor resistance
2. Varies inversely with square of applied voltage
3. Varies directly with stand still reactance
4. All the above are correct

Ans: 1

100. What is the operating resistance of a 30 watt light bulb designed for a 28 volt system?
1. 1.07 ohms
2. 26 ohms
3. 0.93 ohms
4. 62 ohms

Ans: 2

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