

b. Write about progressive inspection and continuous inspection carried out in an aircraft. 10 2 4 1

30. a. Discuss the role of screwdrivers and pliers in aviation industry with a suitable sketch. 10 2 5 1

(OR)

b. What is troubleshooting process? Explain troubleshooting with chart and troubleshooting without chart with suitable block diagrams. 10 2 5 1

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Reg. No.

B.Tech. DEGREE EXAMINATION, NOVEMBER 2022
Sixth/ Seventh Semester

18ASO104T – AIRCRAFT GENERAL ENGINEERING AND MAINTENANCE PRACTICES
(For the candidates admitted from the academic year 2018-2019 to 2019-2020)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
(ii) **Part - B** should be answered in answer booklet.

Time: 2½ Hours

Max. Marks: 75

PART – A (25 × 1 = 25 Marks)

Answer ALL Questions

- | | Marks | BL | CO | PO |
|---|-------|----|----|----|
| 1. A _____ should be assigned when sharp turns are to be made, or when the aircraft is to be backed into position.
(A) Wing walker (B) Tail walker
(C) Working personnel (D) Towing vehicle driver | 1 | 1 | 1 | 1 |
| 2. During longitudinal leveling the spiriting level is placed _____.
(A) Along the wing (B) On front door when opened
(C) On front door when closed (D) Inner front seat rail | 1 | 1 | 1 | 1 |
| 3. _____ is one reason why specialty cleaners have been developed.
(A) Paint (B) Oil
(C) Thinner (D) Fuel | 1 | 1 | 1 | 1 |
| 4. Picketing is the term used in air force for _____.
(A) Mooring (B) Leveling
(C) Jacking (D) Hoisting | 1 | 1 | 1 | 1 |
| 5. Which one of the following is not associated with exterior cleaning of the aircraft?
(A) Washing (B) Soap application
(C) Polishing (D) Dry cleaning | 1 | 1 | 1 | 1 |
| 6. _____ is the most common fire that occurs in ordinary combustible materials such as wood, cloth, paper and upholstery materials.
(A) Class "A" fire (B) Class "B" fire
(C) Class "C" fire (D) Class "D" fire | 1 | 1 | 2 | 1 |
| 7. Freon when heated over an open flame, it converts to _____ which is deadly.
(A) Sulphuric acid (B) Hydrochloric acid
(C) Phosgene (D) Nitric acid | 1 | 1 | 2 | 1 |
| 8. The _____ are gas-turbine engines, using the aircraft's own fuel supply, which provide the power to run the attached generators.
(A) GPU (B) APU
(C) CPU (D) LRU | 1 | 1 | 2 | 1 |

9. When a chromium particle is dropped into concentrated hydrochloric acid, the acid will develop a _____.
 (A) Yellow cloud (B) Greenish cloud
 (C) Blue cloud (D) Red cloud
10. In an air cycle system, separate _____ for cooling system is not required. This reduces the _____.
 (A) Turbine, weight (B) Compressor, weight
 (C) Turbine, weight per kW (D) Compressor, weight per kW cooling
11. Hearing deteriorates naturally as one grows older is called as _____.
 (A) Cochlea (B) Tinnitus
 (C) Vascularis (D) Presbycusis
12. The most observable portion of the MSDS label is the _____ diamond.
 (A) Fear (B) Hazard
 (C) Risk (D) Red
13. _____ means that the material is very hazardous.
 (A) 1 (B) 2
 (C) 3 (D) 4
14. What is the medical name for long sight?
 (A) Hypermetropia (B) Hypermyopia
 (C) Presbyopia (D) Myopia
15. The _____ is a clear window at the very front of the eye.
 (A) Cornea (B) Iris
 (C) Pupil (D) Lens
16. Frequent inspection of landing gears are required in _____.
 (A) Seaplane (B) Aerial application aircraft
 (C) Glider (D) Helicopter
17. Shearing of rivets has to be checked in _____ inspection.
 (A) Hard or overweight landing (B) Severe turbulence / over 'G'
 (C) Flood damage (D) Lighting strike
18. This _____ contains the manufacturer's information and specific instructions for repairing primary and secondary structures.
 (A) Overhaul manual (B) Maintenance manual
 (C) Structural repair manual (D) TCDS
19. Aircraft having an air traffic control (ATC) transponder must have each transponder checked within the preceding _____ months.
 (A) 12 (B) 10
 (C) 18 (D) 24

20. _____ should be checked for wear and cuts.
 (A) Brakes (B) Wheels
 (C) Tires (D) Hydraulic lines
21. A _____ is a hammer-like tool with a head made of hickory, rawhide or rubber.
 (A) Screwdriver (B) Mallet
 (C) Punch (D) Wrench
22. The zone at the bottom, or base, of the weld is called as _____.
 (A) Root (B) Leg
 (C) Toe (D) Bead
23. When experience does not suggest the point at which the troubleshooting should begin, the technician should consider which technique?
 (A) OSHA communications (B) Troubleshooting with chart
 (C) Intermittent discrepancies (D) Divide and conquer
24. _____ promotes wetting.
 (A) Filler rod (B) Heat
 (C) Flux (D) Clean metal
25. In liquid penetrant testing, _____ draws the penetrant out of the crack.
 (A) Developer (B) Emulsifier
 (C) Water supply (D) Black light

PART – B (5 × 10 = 50 Marks)

Answer **ALL** Questions

- | | Marks | BL | CO | PO |
|--|-------|----|----|----|
| 26. a. Explain how a towing procedure is performed in an airplane. | 10 | 2 | 1 | 1 |
| (OR) | | | | |
| b. State the negative effects of ice buildup. Discuss any one method of ice removal with neat sketch. | 10 | 2 | 1 | 1 |
| 27. a. Discuss in detail about the operation procedure and maintenance of Hydraulic Test Rig. | 10 | 2 | 2 | 1 |
| (OR) | | | | |
| b. What is the need for metal particle identification in an oil system? Describe the various test procedures followed to identify the metal particles. | 10 | 2 | 2 | 1 |
| 28. a. What is shop safety? Explain safety around Hazardous Materials with appropriate drawings. | 10 | 2 | 3 | 1 |
| (OR) | | | | |
| b. State and explain the various factors affecting the human performance. | 10 | 2 | 3 | 1 |
| 29. a. What is Type Certificate Data sheet? Explain in detail. | 10 | 2 | 4 | 1 |

(OR)