

- b. Incidents and Accidents attributable to human factors. Justify the statement with an example. 10 2 3 1

29. a. Discuss in detail about the various components of a checklist. 10 2 4 1

(OR)

- 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. List the various NDT methods? Discuss in detail about any two methods with necessary sketches. 10 2 5 1

Reg. No.

B.Tech. DEGREE EXAMINATION, MAY 2022
Sixth 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. Tie down ropes should be capable of resisting a pull of _____ pounds (approx.) for light aircraft tie down. (A) 500 (B) 1000 (C) 2000 (D) 3000 | 1 | 1 | 1 | 1 |
| 2. _____ knot is generally used in aircraft parking. (A) Overhand (B) Bowline (C) Timber hitch (D) Reef | 1 | 1 | 1 | 1 |
| 3. Fumigation means _____. (A) Cleaning (B) Polishing (C) Sterilizing (D) Rubbing | 1 | 1 | 1 | 1 |
| 4. Aircraft equipped with tricycle landing gear are generally towed forward by attaching a _____ to the axle of the nose wheel. (A) Bucking Bar (B) Tow Bar (C) Twisted Steel Bar (D) Mild Steel Bar | 1 | 1 | 1 | 1 |
| 5. The pitot probes are normally kept free of ice by the use of (A) Thermal Heat (B) Electric Heaters (C) Pneumatic Method (D) Chemical Spray | 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. Install the filter assembly using new _____ and gaskets. (A) C - rings (B) H - rings (C) L - rings (D) O- rings | 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. _____ Particles will dissolve rapidly when dropped into a 5 percent solution of chromic acid. 1 1 2 1
 (A) Iron (B) Cadmium
 (C) Nickel (D) Tin
10. In an air cycle system, separate _____ for cooling system is not required. This reduces the _____. 1 1 2 1
 (A) turbine, weight (B) compressor, weight
 (C) turbine, weight per kW (D) compressor, weight per kW cooling.
11. Yellow colour in a risk diamond represents _____. 1 1 3 1
 (A) Flammability (B) Reactivity
 (C) Health Hazard (D) Special hazard
12. The most observable portion of the MSDS label is the _____ diamond. 1 1 3 1
 (A) Fear (B) Hazard
 (C) Risk (D) Red
13. In electrical safety, lack of respect is often due to lack of _____. 1 1 3 1
 (A) Commitment (B) Knowledge
 (C) Motivation (D) Interest
14. What is called long sight medical name? 1 1 3 1
 (A) Hypermetropia (B) Hypermyopia
 (C) Presbyopia (D) Myopia
15. Which one of the following helps to protect the ear from sounds above 80 decibels? 1 1 3 1
 (A) Outer Ear (B) Middle Ear
 (C) Inner Ear (D) Basilar membrane
16. The _____ is the record in which all data concerning the aircraft is recorded. 1 1 4 1
 (A) Aircraft logbook (B) Checklist
 (C) Publications (D) Maintenance Manual
17. _____ should be checked for proper tension, fraying, wear and proper routing through fairleads and pulleys. 1 1 4 1
 (A) Control Mechanism (B) Movable Surfaces
 (C) Control Cables (D) Internal Structure
18. This _____ contains the manufacturer's information and specific instructions for repairing primary and secondary structures. 1 1 4 1
 (A) Overhaul Manual (B) Maintenance Manual
 (C) Structural Repair Manual (D) TCDS
19. Always use a _____ when performing an inspection 1 1 4 1
 (A) Aircraft logbook (B) Checklist
 (C) Publications (D) Maintenance Manual

20. _____ should be checked for wear and cuts. 1 1 4 1
 (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. 1 1 5 1
 (A) Screwdriver (B) Mallet
 (C) Punch (D) Wrench
22. The edge formed where the face of the weld meets the base metal is called as _____. 1 1 5 1
 (A) Root (B) Bead
 (C) Toe (D) Leg
23. The first step in troubleshooting intermittent discrepancies is to gather as much information as possible regarding the _____. 1 1 5 1
 (A) Malfunction (B) Component discrepancy
 (C) Duration of discrepancy (D) Operational weaknesses
24. _____ promotes wetting. 1 1 5 1
 (A) Filler Rod (B) Heat
 (C) Flux (D) Clean metal
25. In Liquid Penetrant Testing, _____ draws the penetrant out of the crack. 1 1 5 1
 (A) Developer (B) Emulsifier
 (C) Water Spray (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 purpose of aircraft cleaning? Describe the cleaning process in detail. 10 2 1 1
27. a. Explain the various fire extinguishing agents used in the aircraft maintenance practices. 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)