

AE 2022 / AIRCRAFT GENERAL ENGINEING AND MAINTENANCE PRACTICES

1. Enumerate the safety precautions to be observed while towing the aircraft.
2. Enumerate the ground power units and explain in detail about operations of each ground unit.
3. Describe the maintenance of air-conditioning system of an aircraft.
4. Explain the inspection and checks carried out on pressure system of an aircraft.
5. Discuss the safety measures being taken in maintenance of an Hangar.
6. Enumerate the safety precautions observed during refueling on aircraft?
7. Explain the special inspection carried out when an aircraft had faced a severe turbulence and also had a heavy landing after the sortie?
8. Explain in detail about the various publication / manuals maintenance of the aircraft?
9. Discuss the various types of gears used in aircraft industry.
10. Discuss the different bearings used in aeroengine and aircraft system.
11. Explain about various types of rivets used in aircraft.
12. Enumerate the various ground power units used in aircraft maintenance?
13. What is the normal tie down procedure on small aircraft after each flight?
14. What is precaution to be taken while parking an aircraft?
15. State the type of fires and the fire extinguishing agents?
16. State five basic requirements for the successful functioning of a cabin pressurization and air conditioning system.
17. Enumerate five types of valves commonly used in high pressure gaseous oxygen systems.
18. Define maintenance safety. Or What is meant by maintenance safety?
19. Enumerate the safety precautions while handling compressed air system
20. Enumerate the safety precautions to be followed while performing welding operation in a serviceable aircraft.
21. What is type certificate data Sheet?
22. Prepare a 'check list' enumerating the groups in sequence for inspection of an aircraft.
23. Describe the safety aspects of the aero workshop.
24. Discuss the environmental cleanliness of aircraft maintenance.
25. Explain the special tools and equipments used in an airplane maintenance shop.
26. Explain with the sketches the types threads and their advantages.
27. Explain the oxygen system used in aircraft.
28. a) What is the purpose of lubrication ?

b) With the help of a diagram .explain the operation of dry sump lubrication system in piston engine.
29. Write a short notes on

- a) bulletins
 - b) maintenance manual
 - c) overhaul manual
 - d) structure repair manual
30. Explain in detail about cable swaging procedure.
 31. Explain in detail the starting procedure of piston engine aircraft.
 32. Explain intake and exhaust hazard areas.
 33. Describe the safety aspects of the aero workshop.
 34. Briefly explain different types of ground support units.
 35. Explain ATA specifications.
 36. Explain rigging of an aircraft.
 37. Explain vapour cycle air conditioning system of an aircraft.
 38. Explain in detail about FAR Air worthiness directives.
 39. Explain about the "FACTOR"
 40. Explain the special inspection carried out during "hard or overweight landing" and the aircraft had passed through "severe turbulence".