

B.E. DEGREE EXAMINATIONS: APRIL / MAY 2010

Sixth Semester

AERONAUTICAL ENGINEERING

U07AR601: Aircraft General Engineering and Maintenance Practices

Time: Three Hours

Maximum Marks: 100

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Aircraft jacking is for

- A. parking B. towing C. levelling D. ground running

2. Mooring means

- A. jacking B. towing C. parking D. tie down

3. Hypoxia is lack of

- A. air B. oxygen C. food D. exercise

4. Gasper system distributes

- A. hot air B. cold air C. atmospheric air D. mix of hot and cold air

5. Safty lanes is for

- A. work area B. ground equipments C. tools D. workman walking area

6. MSDS risk diamond red colour means

- A. health B. flammability C. reactivity D. special hazard

7. Service bulletin is issued by

- A. publishers B. designers C. technicians D. manufactures

8. Special inspection is for

- A. overhaul B. periodic C. special repair D. heavy landing

9. Semi rigid fluid line is

- A. synthetic B. rubber C. polymer D. metallic

10. Flexible hoses are used to connect

- A. stationary parts B. moving parts.
C. stationary and moving parts D. rotating parts

PART B (10 x 2 = 20 Marks)

11. What is leveling of aircraft?

12. What do you mean by unsatisfactory turbine engine start?

13. What is purging?
14. What are the precautions to be taken while handling compressed air?
15. Define special inspection?
16. What is the purpose of check list?
17. What are aircraft logs?
18. What are bulletins?
19. Briefly describe airworthiness directive?
20. What are the advantages of swaging over splicing?

PART C (5 x 14 = 70 Marks)

21. a) (i) Explain towing procedure of an aircraft with neat sketch? (10)
(ii) What are the precautions to be observed while jacking of an aircraft? (4)

(OR)

- b) (i) Explain starting procedure of a turboprop engine? (10)
(ii) Explain intake and exhaust hazard areas? (4)

22. a) What are the precautions and procedure adopted to carry out servicing of oxygen system? Explain in detail.

(OR)

- b) (i) Explain in detail maintenance of air-conditioning and pressurization system of an aircraft? (10)
(ii) Briefly explain different types of ground support units? (4)

23. a) (i) Describe different types of publications used in the aircraft maintenance? (8)
(ii) Explain special inspection carried out on the aircraft? (6)

(OR)

- b) (i) Explain type certification data sheets? (6)
(ii) Explain ATA specification? (8)

24. a) Explain different aspects involved in the aircraft maintenance safety?

(OR)

b) (i) Describe welding safety to be observed in the workshop? (6)

(ii) Explain FAR airworthiness directive? (8)

25. a) (i) Explain different types of rivets used in the aircraft industry? (6)

(ii) Explain special tools used in aircraft industry? (8)

(OR)

b) (i) Explain different types of fluid lines and its identification? (8)

(ii) What are the different plumbing connectors used in aviation? (6)
