

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2018 - 19 Examination

Semester: 8

Subject Code: 03101451

Subject Name: Aircraft Maintenance

Date: 29/04/2019

Time: 10:30am To 01:00pm

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions (All are compulsory) (One mark each) (15)

1. CAR stands for _____
2. CAR Section 2 Airworthiness is issued under the Rule _____ of Aircraft rules 1937.
3. In the repair of fuel tanks, the duration of live steam after cleaning with hot water and detergent mixture is _____
4. In gas welding, welding flux is removed immediately to prevent _____
5. Rule _____ lays down the acceptable standard for modification/repair and form and manner of distribution of the compliance certificate for the same and preservation thereof.
6. State aircraft rule 50A.
7. Define decision tree.
8. Name the type of steel tubing used most extensively for aircraft structures, engine mounts, and similar parts.
9. State the range of thickness for sheet metal in aircraft fabric covering.
10. What is damage tolerance?
11. Engine pressure ratio is determined by:
 - a) Multiplying engine inlet total pressure by turbine outlet total pressure
 - b) Dividing turbine outlet total pressure by engine inlet total pressure
 - c) Dividing engine inlet total pressure by turbine outlet total pressure
 - d) Multiplying engine outlet total pressure by turbine inlet total pressure
12. Matching value of temperature for the high-performance engineering plastics:
 - a) 400 F b) 300 F c) 600 F d) 700 F
13. Fuel spill safety:

a) Source of fuel spill shutoff	c) Ignition should be removed
b) Ground power unit turned off	d) All of the above
14. Carcinogens are:

a) Combustible liquids	b) Flammable aerosols
b) Explosives	d) None of the above
15. Acute hazard among the following:

a) Irritants	b) Gases
c) Oxidizers	d) Explosives

Q.2 Answer the following questions. (Attempt any three) (15)

- A) What are the objectives and targets of Airworthiness Directorate of Civil Aviation Department?
- B) Analyze the safety factors of compressed gas and its storage in aviation industry.
- C) Write down about the preparation procedure to be followed for the aircraft inspection.
- D) Explain about preventive maintenance?

Q.3 A) Describe about rosette welding. (07)

- B) Describe about the aircraft hazardous materials. (08)

OR

- B) Summarize about different phases of flight inspection. (08)

Q.4 A) Summarize about the inspection of fire extinguishers. (07)**OR**

- A) Explain about inspection of airplanes having wood structures. (07)

- B) Describe about remote visual testing. (08)