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10AE753

**Seventh Semester B.E. Degree Examination, Dec.2015/Jan.2016**  
**Aircraft Maintenance, Repair and Overhaul**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting  
atleast TWO questions from each part.**

**PART – A**

- 1 a. Explain the equipments used in oxyacetylene welding. (04 Marks)  
b. What are the characteristics to ensure the quality of weld? Explain them. (06 Marks)  
c. What is soldering and brazing? Explain the special soldering applications. (07 Marks)  
d. Write short note on welding, jigs and fixtures. (03 Marks)
- 2 a. Explain the classification of sheet metal damage. (06 Marks)  
b. What is purpose of nondestructive testing? Explain in detail FPI and MPI. (08 Marks)  
c. Describe procedure for rivet – repair design process. (06 Marks)
- 3 a. What are the characteristics of plastics? Explain the types of plastics used in aircraft. (10 Marks)  
b. Explain the inspection of plastic components. With figures also explain repairs of cracks and repairs of holes. (10 Marks)  
c. Describe the technique for clearing a plastic surface.
- 4 Explain in detail inspection and repair of composite components with figures. (20 Marks)

**PART – B**

- 5 a. How are airplane control surfaces balanced? Explain briefly. (10 Marks)  
b. Explain in detail about helicopter flight controls. (10 Marks)
- 6 a. Explain in detail the inspection and maintenance of landing gear systems. (08 Marks)  
b. Explain the installation and handling of aircraft instruments. (06 Marks)  
c. Discuss briefly about pressurization and air conditioning system in aircraft. (06 Marks)
- 7 a. What do you mean by auxiliary system? Explain the requirements for overheat and fire protection systems. (10 Marks)  
b. Explain with figure the ice detection systems. (10 Marks)
- 8 a. Explain in detail about hazardous materials used in aviation maintenance with their handling and storage. (14 Marks)  
b. What is trouble shooting process? List the steps in trouble shooting process. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8=50, will be treated as malpractice.