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10AE753

**Seventh Semester B.E. Degree Examination, Dec.2016/Jan.2017**  
**Aircraft Maintenance, Repair and Overhaul**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. What are the different types of welding carried out in Aircraft industry? Give an example of a weld on a part and explain why that weld is better. (08 Marks)  
b. Explain the procedure for spot welding. (06 Marks)  
c. Where is brazing carried out? Explain the need for it. (06 Marks)
- 2 a. What are the various damages on sheet metal, how are they classified? Explain. (06 Marks)  
b. How a gauge of depth 0.3 mm on a 3 mm thick aluminium sheet be repaired? The length of the gauge is 10 mm. (08 Marks)  
c. Describe any two common sheet metal inspections. (06 Marks)
- 3 a. What are the various types of plastic used in aircraft and their applications? (10 Marks)  
b. Suggest a repair scheme for a small crack on a plastic component. (10 Marks)
- 4 a. What are the NDT tests carried out on composite material? Describe two of them. (06 Marks)  
b. How a bulge on the skin of a composite part be repaired? (04 Marks)  
c. Describe a repair scheme for a composite part where the skin is damaged with a cut of 15 mm long and a depth of 0.2 mm. The skin is made up of 20 layers of fabric. (10 Marks)

**PART – B**

- 5 a. Write when and why the aircraft has to be weighed and when weighing, what should be the configuration of aircraft. (06 Marks)  
b. When is the control surface balancing carried out? (04 Marks)  
c. Write a procedure for balancing an aileron. (10 Marks)
- 6 a. Describe landing gear inspection. (06 Marks)  
b. Write the procedure for checking pressurization of a passenger aircraft. (08 Marks)  
c. How is (i) Wear of brake pads monitored?  
(ii) Slippage of tyre checked? (06 Marks)
- 7 a. How is Fire protection system on a passenger aircraft tested? (06 Marks)  
b. Explain the various types of position sensor used in airplanes. (08 Marks)  
c. Write the procedure for starting the APu. (06 Marks)
- 8 a. Describe the general guide lines to be ensured in an aircraft store. (10 Marks)  
b. What are the checks carried out inside the airplane to ensure all furnishing items are cleared for flight? (10 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.