

CRASH COURSE

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10AE753

Seventh Semester B.E. Degree Examination, May 2017 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. Differentiate between the terms maintenance, repair and overhaul in aeronautical industry. (10 Marks)
b. What are the characteristics to ensure the qualities of good welding? (06 Marks)
c. What is soldering and brazing? (04 Marks)
- 2 a. Explain the importance of sheet metal inspection in aircraft. (06 Marks)
b. How to determine the numbers of rivets required for the lap joint? (10 Marks)
c. What is non destructive testing (NDT)? Mention different NDTs used in aircraft industries. (04 Marks)
- 3 a. List the types of plastics used in aircraft and write a short note on characteristics of plastic. (10 Marks)
b. Describe the techniques used in cleaning the plastic surfaces. (05 Marks)
c. Explain with figure plastic repairs for cracks and holes. (05 Marks)
- 4 a. Explain the methods used in inspection of composites. (10 Marks)
b. What is composite material? explain with neat sketch types of composite structures. (10 Marks)

PART – B

- 5 a. What is aircraft rigging? Differentiate between aircraft assembly and rigging. Explain procedure for assembly of aircraft. (12 Marks)
b. Explain in detail tracking and balancing of helicopter main rotor system. (08 Marks)
- 6 a. What are the procedures for inspection and maintenance of landing gear system? (08 Marks)
b. What are flight instruments? Explain in detail different aircraft instrument and their maintenance. (12 Marks)
- 7 a. What is auxiliary power unit (APU)? Explain the requirements for overheat and fire protection system. (06 Marks)
b. With a neat sketch, explain the windshield rain wiper system of an aircraft. (10 Marks)
c. Explain in brief servicing and inspection of fire protection system. (04 Marks)
- 8 a. Explain the importance of trouble shooting process and trouble shoot chart of aircraft. (10 Marks)
b. Explain in detail about hazardous materials used in aviation their maintenance. (10 Marks)

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