## ONE TIME EXIT SCHEME

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## Seventh Semester B.E. Degree Examination, April 2018 Aircraft Maintenance, Repair and Overhaul

Time: 3 hrs. Max. Marks: 100

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

1 a. With a neat diagram, explain oxygen cylinder valve. b. Describe good quality completed weld characteristics. c. What is fixture? d. Describe the procedure for soft soldering.  2 a. Derive the expression for N <sub>t</sub> for 3D and 4D spacing. b. Calculate the diameter of the rive-1 required by using following data: F <sub>b</sub> = 97000 psi, F <sub>s</sub> = 30000 psi, t = 0.032 (04 Marks) c. Describe the characteristics of plastics. d. Describe the characteristics of plastics. b. Explain the removal instructions for an acrylic wind shield i.e. adhesively bonded to the structure. c. What is crazing? d. How plug fitted to hole?  4 a. With neat diagram, explain water removal using vacuum bag procedure. b. Explain the difference between co curing, co bounding and secondary bonding. c. Describe the items required for analyzing the operation of man rotor. c. Write short notes on: i) Collective pitch control ii) Cyclic-pitch control iii) Cyclic-pitch control iii) Cyclic-pitch control c. Write short notes on: a. Explain with detailed diagram of wheel toe in and chamber check. b. Illustrate the passenger water system in Airbus 330.  4 a. Illustrate the operation of overheat and fire sensors. b. Describe flight control position indicating system for jet aircraft. c. What methods, other than wipers may be used to remove rain from a wind shield?  4 a. Describe Hazardous materials storage and handling. b. With example, explain the trouble shooting chart.  4 b. With example, explain the trouble shooting chart.  5 c. Waters)			PART - A	
<ul> <li>b. Describe good quality completed weld characteristics.</li> <li>c. What is fixture?</li> <li>d. Describe the procedure for soft soldering.</li> <li>2 a. Derive the expression for N<sub>τ</sub> for 3D and 4D spacing.</li> <li>b. Calculate the diameter of the rive-1 required by using following data:  F<sub>b</sub> = 97000 psi, F<sub>5</sub> = 30000 psi, t = 0.032 (04 Marks)</li> <li>c. Describe riveting principle for stringers.</li> <li>d. Describe the characteristics of plastics.</li> <li>b. Explain the removal instructions for an aerylic wind shield i.e. adhesively bonded to the structure.</li> <li>c. What is crazing?</li> <li>d. How plug fitted to hole?</li> <li>d. How plug fitted to hole?</li> <li>d. With neat diagram, explain water removal using vacuum bag procedure.</li> <li>b. Explain the difference between co curing, co bounding and secondary bonding.</li> <li>c. Describe the principle of thermography.</li> <li>d. Describe the items required for analyzing the operation of main rotor.</li> <li>d. Write short notes on:  i) Collective pitch control</li> <li>ii) Cyclic-pitch control</li> <li>iii) Cyclic-pitch control</li> <li>iii) Cyclic-pitch control</li> <li>iii) Cyclic-pitch control</li> <li>of Marks)</li> <li>b. Illustrate the operation of overheat and fire sensors.</li> <li>b. Describe flight control position indicating system for jet aircraft.</li> <li>c. What methods, other than wipers may be used to remove rain from a wind shield?</li> <li>(04 Marks)</li> <li>(04 Marks)</li> </ul>	1	a.	With a neat diagram, explain oxygen cylinder valve.	(07 Marks)
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