

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-V • EXAMINATION – WINTER • 2014**

**Subject Code: 150105****Date: 10-12-2014****Subject Name: Operation and Maintenance of Aircraft****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Name groups of hazardous material and explain, acronym “FACTOR” stands for what? **07**
- (b) Explain typical twin engine fuel system with figure and write function of components used. **07**
- Q.2** (a) Explain transport aircraft fuselage. Why dose it have pressurized passenger compartment? **07**
- (b) What do you understand by aircraft overhauling and maintenance? Describe overhaul process with stages in sequence. **07**
- OR**
- (b) Draw figures of different configuration. Explain purpose, types and configuration of landing gears with figures and aircraft landing load. **07**
- Q.3** (a) Describe application of various communication systems of an aircraft. With help of diagram ATU of HF Tx-Rx **07**
- (b) What is thermocouple and circuitry symbol? Using thermocouple explain EGT indicator with working diagram. **07**
- OR**
- Q.3** (a) Explain three phase tachometer with diagram. How and where its probe is connected? **07**
- (b) Write short notes (any two). **07**
- a) EFIS, b) ECAM, c) EADI
- Q.4** (a) Mention the electrical power available in a large passenger aircraft. Explain their utilization with figure. **07**
- (b) Explain vhf transreceiver with circuit diagram showing all stages. **07**
- OR**
- Q.4** (a) Explain operation of Weather Radar installed in aircraft. What is Radom? Show its location in aircraft structure and purpose. **07**
- (b) Explain fundamentals of plastic material with types and examples. **07**
- Q.5** (a) Enlist different types of welding processes. Explain any one of the welding process in details with figure. **07**
- (b) Explain engine starting procedure step wise with starting figure. **07**
- OR**
- Q.5** (a) Explain electronic horizontal situation indicator with block diagram. **07**
- (b) Describe oil lubricating system used in aircraft jet turbine engine and system components. **07**

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