Coot No.	Envolment No
Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-III • EXAMINATION - WINTER • 2014

		ject Code: 130104 Date: 01-01-2015	
	Tim	ject Name: Introduction to Profession e: 02.30 pm - 05.00 pm uctions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.	
Q.1	(a)	Differentiate airfoil of low speed, high speed and supersonic speed aircraft with	07
	(b)	appropriate figure. How atmosphere affects aircraft flight? What is standard atmosphere? Explain briefly.	07
Q.2	(a) (b)	Describe aircraft flight axis operation when primary controls are in action. Define Angle of Attack, critical angle of attack and stalling with figure. Which is the best angle of attack for generating maximum lift. Draw Angle of Attack vs lift graph.	07 07
	(1.)	OR	07
	(b)	Describe load factor, limit load, ultimate load and stresses imposed on aircraft.	07
Q.3	(a) (b)	Draw a figure of transport aircraft and classify its parts briefly with usage. Explain transport aircraft tail plane and controls structure in details. OR	07 07
Q.3	(a) (b)	Explain operation of all primary controls during flight with sketch. Which are the parts joined on fuselage. Explain transport aircraft fuselage structure with main components and integrated fuel tank.	07 07
Q.4	(a)	Why crew cabin and passenger compartments are pressurized? Explain aircraft	07
	(b)	loads and landing load. What do you understand by jet turbine engine? Explain turboprop jet engine with figure.	07
		OR	
Q.4	(a)	Explain cooling systems and operation of four stroke piston engine with figure. Is it a IC or EC engine?	07
	(b)	Differentiate Primary and Secondary Radars with their necessity	07
Q.5	(a) (b)	Explain operation of DME with figure. Explain stages of aircraft flight starting from takeoff to parking. OR	07 07
Q.5	(a) (b)	Give introductory note on Air born system in brief. Explain configuration and types of landing gears installed on different types of aircrafts.	07 07
