

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017****Subject Code:130104****Date:29/11/2017****Subject Name: Introduction of Profession****Time: 10:30 AM to 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 Draw cross section of airfoil with nomenclature and explain how a wing produces lift during flying. 07
B What types of aircrafts are there in the world? Explain each type in one or two sentence. 07
- Q-2 A Draw an isometric view of any one type of aircraft with all primary and secondary control surfaces. 07
B Explain basic function of rudder and aileron. Explain why ailerons are being operated opposite in directions and elevators are being operated in same directions. 07
- OR
- B Differentiate between airbrakes and spoilers. 07
- Q-3 A Classify stability and explain static and dynamic stability shortly. 07
B Draw and explain structural considerations of a cylindrical pressurizing fuselage. 07
- OR
- A Explain structure of horizontal stabilizer with neat sketch and nomenclature showing spar, rib, stringer and skin. 07
B With nomenclature explain truss type fuselage. 07
- Q-4 A Explain localizer, glide slope and marker beacon function. 07
B Explain VHF navigation and To-From function of VOR. 07
- OR
- A Differentiate between primary Radar and SSR. 07
B How a pilot does manage his/her aircraft in traffic pattern by help of ATC? 07
- Q-5 A Differentiate between ILS and MLS. 07
B Explain Inertial Navigation and Guidance System. 07
- OR
- A Explain principle of Doppler radar. 07
B What radio navigation and visual aids are used to make an approach for landing? Explain shortly.

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