

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-III Remedial Examination May 2011

Subject code: 130104

Subject Name: Introduction of Profession

Date: 18-05-2011

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) Define “Standard Atmospheric conditions”. Explain “Temperature variation” with altitude with graph Temp vs. Altitude. Define “Iso-Thermal Layer”. **07**
- (b) Explain “Two Stroke Engine” with neat sketch. **07**
- Q.2** (a) Explanation of three types of stability with neat sketches. **07**
- (b) Explain with neat sketch how three types of stabilities are maintained around all three axes. **07**
- OR**
- (b) Explain factors affecting aircraft stability. **07**
- Q.3** (a) Explain “Turbo Prop Engine” with neat sketch. **07**
- (b) Enlist avionics system used in aircrafts and shortly brief them. **07**
- OR**
- Q.3** (a) Explain Turbo Jet Engine with neat sketch with after burner facility. **07**
- (b) Categories different types of aircrafts used in aviation. Explain each category shortly. **07**
- Q.4** (a) What are flaps? Why they are called lift augmented devices? Enlist types of flaps with neat sketch. **07**
- (b) Explain main functions of main wheels and under carriages with neat sketch. **07**
- OR**
- Q.4** (a) What is stall? How is it harmful for a flying aircraft ? **07**
- (b) Explain leading devices with neat sketch ? **07**
- Q.5** (a) Write history of a radio. How it was invented and its usage progressed over a period of time? What were its applications ? **07**
- (b) How “Telephony” and “Telegraphy Communication” were established with the help of radio? Explain function of “Radio Transmitter” with block diagram. **07**
- OR**
- Q.5** (a) What is ILS? With the help of neat sketch explain the function of elements of ILS. **07**
- (b) What is direction finding with the help of radio wave? How do we find the directions? Explain with the help of polar diagram. **07**
