

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV • EXAMINATION – SUMMER 2013****Subject Code: 140103****Date: 19-06-2013****Subject Name: Aircraft System and Instruments****Time: 10:30am – 01:00pm****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) Enlist different types of systems required to conduct safe flight. **07**
(b) Enlist different types of instruments you find on instrument panel of an aircraft? **07**
- Q.2** (a) What are markings on Air Speed Indicators dials? **07**
(b) How an Attitude Indicator helps pilot to know attitude of aircraft? **07**
- OR**
- (b) What Engine instruments are used in piston engine aircrafts? **07**
- Q.3** (a) Shortly explain double acting and single acting hydraulic actuators. **07**
(b) With neat sketch explain fuel tank of light aircraft. **07**
- OR**
- Q.3** (a) With neat sketch explain fuel system of a high wing light aircraft. **07**
(b) Explain application of hydraulic system as control system of aircraft. **07**
- Q.4** (a) What are main components of hydraulic system of aircraft? **07**
(b) Explain function of Vertical Speed Indicator with neat sketch. **07**
- OR**
- Q.4** (a) Explain Pitot Static System of an aircraft. **07**
Q.4 (b) Explain with neat sketch how pressure altimeter works. **07**
- Q.5** (a) What are errors of Air Speed Indicators? **07**
(b) What are instruments require monitoring performance of gas turbine engine? **07**
- OR**
- Q.5** (a) What are anti-icing and de-icing systems of aircraft? Explain with neat sketch. **07**
(b) What is cabin pressurization system? Explain with neat sketch. **07**
