

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – WINTER 2013****Subject Code: 160106****Date: 09-12-2013****Subject Name: Avionics****Time: 02.30 pm - 05.00 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) With neat sketch explain a system which helps pilot to land an aircraft at night or in low visibility. **07**
(b) How a VOR helps pilot to find direction from and to the airports. **07**

- Q.2** (a) Differentiate difference between HF and VHF wave propagation. **07**
(b) Define-Radial, Bearings, Heading, Track-Made-Good, Required Track, Drift, Magnetic Variation. **07**

OR

- (b) Explain a system which helps pilot to avoid potential collision with head-on aircrafts on same track. **07**

- Q.3** (a) What is the difference between Traffic Advisory and Resolution Advisory? **07**
(b) How a pilot come to know about weather which has been developed Enroute? **07**

OR

- Q.3** (a) What is Iso-Echo observed on Airborne Weather Radar's screen? How does it help pilot to monitor extreme concentration of thunder storm? **07**
(b) What is DME? Why more than 100 aircrafts are not able to identify a single DME station? **07**

- Q.4** (a) Why Helmet Mounted Display (HMD) and Head-Up Display (HUD) are purposeful to improve Avionics Architecture? **07**
(b) With neat sketch explain airport layout which shows location of different avionics transmitters and Radars. **07**

OR

- Q.4** (a) Give a short note on Global Positioning System with neat sketch. **07**
(b) Explain the avionics system which helps pilot to monitor Negative Rate of Climb after Take-off. **07**

- Q.5** (a) What is Radio Altimeter? How does it differ than Pressure Altimeter? **07**
(b) If aircraft is flying near coast line at low level, then what type of avionics errors can be occurred? **07**

OR

- Q.5** (a) What is Multi Functional Display (MFD)? What types of information can you have from the MFD Screen in conventional Aircrafts? **07**
(b) What tricks are used to minimize size of cockpit of fighter aircrafts? Discuss Avionics architecture of fighter Aircraft's cockpits. **07**
