

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016****Subject Code:2160106****Date:17/05/2016****Subject Name: Avionics****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) Explain onboard weather monitoring system with neat sketch. **07**
(b) Explain Electronic warfare in brief with suitable diagram. **07**
- Q.2** (a) Explain Airborne Early warning system in brief. **07**
(b) Explain the operation of the instrument which is used at the time of visual metrological condition and its application. **07**
- OR**
- (b) Explain satellite communication system and its application in brief. **07**
- Q.3** (a) Explain SHEL model and importance of human factor engineering in flight deck design. **07**
(b) What do you know about Doppler effect? Explain Working principle and application of Doppler radar. **07**
- OR**
- Q.3** (a) Write a short note on: (i) Fly-By-Wire system **07**
(ii) VORTAC
(b) Explain SSR. How is it better than Primary Radar? **07**
- Q.4** (a) Explain Radar Altimeter in brief with suitable sketch. **07**
(b) Explain VHF navigation VOR system. **07**
- OR**
- Q.4** (a) Explain types of Speech Recognition and its Errors in brief. **07**
(b) Explain GPS. How GPS helps pilot for navigation purpose. **07**
- Q.5** (a) Explain the system which helps pilot to avoid potential collision with other aircraft on its way. **07**
(b) Explain Head-Up Display and Head Mounted Display with neat sketch. **07**
- OR**
- Q.5** (a) Explain Flight Management System with neat sketch. **07**
(b) Explain the electromagnetic wave propagation in atmosphere. **07**
