

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE – SEMESTER – VI (NEW).EXAMINATION – WINTER 2016

**Subject Code: 2160106**

**Date: 26/10/2016**

**Subject Name: Avionics**

**Time: 02:30 PM to 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 Enlist and shortly explain applications of onboard avionics system. 07  
B Explain a system which protects fighter aircraft and pilot from hitting the ground while low level flying in deep penetration strike operation? 07
- Q-2 A Explain how does a pilot get radial of flying from VOR station towards destination or enroute VOR? Explain VOR navigation. 07  
B Which system helps pilot to land the aircraft during night and poor visibility? Only draw layout and azimuth with distances and angles. 07  
OR  
B Explain Aviation Doppler Radar. 07
- Q-3 A Explain the system mounted with the helmet of a fighter pilot. 07  
B How does an avionics system monitor weather in front of aircrafts? How does it create map? 07  
OR  
A Differentiate between VOR navigation and ADF navigation system. 07  
B How does a pilot see ground objects in night? How does he come to identify the operational and static aircrafts? 07
- Q-4 A Differentiate between GPS mode and NAV mode for navigation system. 07  
B Explain the system which protects an aircraft from head on enroute aircraft. 07  
OR  
A Which errors take place while operating ADF instrument navigation? 07  
B Draw a dial of ILS. How does pilot come to know about deviation from glide slope and localizer? 07
- Q-5 A Explain electronic warfare with suitable sketch. 07  
B Differentiate between primary and secondary ground radar. 07  
OR  
A Explain classification of Jamming. 07  
B How Airborne early warning system is more important than any ground radar systems? 07

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