

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018****Subject Code:2160106****Date:08/05/2018****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.

**MARKS**

- Q.1** (a) Why does DME collocate with glide slope? **03**
- (b) Explain sequence of marker beacons. **04**
- (c) Discuss application of DME in civil and military aviation. **07**
- Q.2** (a) Why inner marker is not attached with every ILS? **03**
- (b) Differentiate between precision and non precision approach. **04**
- (c) Draw and explain Azimuth of general aviation ILS. **07**
- OR**
- (c) Draw and explain Elevation of general aviation ILS. **07**
- Q.3** (a) Explain radial interception. **03**
- (b) Differentiate between ILS and MLS. **04**
- (c) Explain VOR navigation. **07**
- OR**
- Q.3** (a) Differentiate between VOR and ILS approach. **03**
- (b) Explain wave propagation of HF wave. **04**
- (c) Discuss errors of NDB navigation. **07**
- Q.4** (a) Explain importance of DH bug in radio altimeter. **03**
- (b) Only draw and explain movement of CDI in ILS indicator. **04**
- (c) Shortly explain GPWS. **07**
- OR**
- Q.4** (a) How radio altimeter warns pilot about low ground clearance? **03**
- (b) Shortly explain importance of speech recognition synthesis. **04**
- (c) Explain GPS. **07**

- Q.5 (a) Explain application of TACAN in VORTAC. **03**  
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- (b) Differentiate between primary and secondary radar. **04**
- (c) Briefly explain fly by wire control system for elevator. **07**

**OR**

- Q.5 (a) How AWACS is helpful to airforce? **03**
- (b) Explain application of flight management system flight. **04**
- (c) Discuss ergonomics of cockpit design. **07**

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