

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2170105****Date: 03/12/2018****Subject Name: Advance 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) Enlist ILLITIES which are required for digital avionics system design. | 03 |
| | (b) Explain Maintenance by WHO, WHEN and WHERE in brief. | 04 |
| | (c) Explain Indian Regional Navigation satellite system in brief. | 07 |
| Q.2 | (a) Enlist flight deck audio systems. | 03 |
| | (b) Explain Multifunction Display with neat sketch. | 04 |
| | (c) Explain Emergency locator transmitter in brief. | 07 |
| OR | | |
| | (c) Explain Microwave landing system with suitable sketch. | 07 |
| Q.3 | (a) Write a note on Built-In- Test Equipment. | 03 |
| | (b) Explain HF wave Propagation in brief. | 04 |
| | (c) Explain Inertial reference system in brief. | 07 |
| OR | | |
| Q.3 | (a) Enlist Fault detection methodology. | 03 |
| | (b) Write a short note on Central Fault Display System. | 04 |
| | (c) Explain Fault tolerance software in brief. | 07 |
| Q.4 | (a) Explain relation between life cycle cost and Mean Time Between Failure. | 03 |
| | (b) Draw block diagram of HF radio equipment. | 04 |
| | (c) Explain Enhanced Ground Proximity warning system with suitable sketch. | 07 |
| OR | | |
| Q.4 | (a) Enlist basic avionics instruments which are located in conventional cockpit. | 03 |
| | (b) Write a note on SELCAL. | 04 |
| | (c) Explain Environmental Tests which are carried out after completion of digital avionics system design in brief. | 07 |
| Q.5 | (a) List out types of Emergency locator transmitter. | 03 |
| | (b) Write a note on cockpit voice recorder. | 04 |
| | (c) Explain how mission of the aircraft drive the digital avionics system design. | 07 |
| OR | | |
| Q.5 | (a) Shortly explain Passenger Audio system. | 03 |
| | (b) Explain Abbreviated Test Language for all system in brief. | 04 |
| | (c) Explain the effects of temperature on digital avionics system design in brief. | 07 |
