

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– VII (NEW) EXAMINATION – WINTER 2021****Subject Code:2170105****Date:01/12/2021****Subject Name:Advanced 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.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) What are the different applications of HF wave? **03**  
 (b) List out types of Emergency locator transmitter **04**  
 (c) Explain Microwave landing system with suitable sketch. **07**
- Q.2** (a) Explain an importance of avionics system in aviation industry. **03**  
 (b) Explain SSB modulation. **04**  
 (c) Explain IRNSS in brief and its application. **07**
- OR**
- (c) Explain Inertial reference system in brief. **07**
- Q.3** (a) Why we use MLS in place of ILS? **03**  
 (b) Explain Selective calling in brief. **04**  
 (c) Explain HF radio equipment with suitable block diagram. **07**
- OR**
- Q.3** (a) Explain difference between GPWS and EGPWS. **03**  
 (b) Write a short note BITE. **04**  
 (c) Explain Enhanced Ground proximity warning system in brief with neat sketch. **07**
- Q.4** (a) Write down types of Flight interphone system. **03**  
 (b) Write a note on cockpit voice recorder **04**  
 (c) What do you understand by “maintenance by WHO, WHEN and WHERE”? **07**
- OR**
- Q.4** (a) Enlist Fault detection methodology. **03**  
 (b) Explain the types of avionics system architecture with advantages and disadvantages. **04**  
 (c) Explain principle of Flight director system and its purpose in brief. **07**
- Q.5** (a) Write a note on flight data system. **03**  
 (b) Write a short note Write a short note on Central Fault Display System. **04**  
 (c) Explain Multifunction display with suitable sketch. **07**
- OR**
- Q.5** (a) Explain difference between life cycle cost of military aircraft and commercial aircraft. **03**  
 (b) How the Aircraft mission drives the avionics system design. **04**  
 (c) Explain the ILITIES which governs the digital avionics system. **07**

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