

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– VII (New) EXAMINATION – WINTER 2019****Subject Code: 2170105****Date: 30/11/2019****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.

		<b>MARKS</b>
<b>Q.1</b>	(a) What the importance of avionics system in aviation industry?	<b>03</b>
	(b) Explain HF radio equipment with suitable block diagram.	<b>04</b>
	(c) Explain IRNSS in brief.	<b>07</b>
<b>Q.2</b>	(a) What are the different applications of HF wave?	<b>03</b>
	(b) Write a note on cockpit voice recorder	<b>04</b>
	(c) Explain Microwave landing system with suitable sketch.	<b>07</b>
	<b>OR</b>	
	(c) Explain Fault Tolerance software in brief.	<b>07</b>
<b>Q.3</b>	(a) Enlist basic avionics instruments which are located in conventional cockpit.	<b>03</b>
	(b) Explain the ILITIES which governs the digital avionics system.	<b>04</b>
	(c) Explain Emergency locator transmitter in brief.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) List out types of Emergency locator transmitter	<b>03</b>
	(b) Write a short note on Central Fault Display System.	<b>04</b>
	(c) Explain Flight management system with suitable diagram.	<b>07</b>
<b>Q.4</b>	(a) Explain difference between GPWS and EGPWS.	<b>03</b>
	(b) Explain Selective calling in brief.	<b>04</b>
	(c) Explain Inertial reference system in brief.	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Explain relation between life cycle cost and Mean Time Between Failure.	<b>03</b>
	(b) Write a short note on Autopilot flight director system.	<b>04</b>
	(c) Explain Electronic flight instrument system with suitable sketch.	<b>07</b>
<b>Q.5</b>	(a) Write down types of Flight interphone system.	<b>03</b>
	(b) What do you understand by “Maintenance by WHO, WHEN and WHERE”?	<b>04</b>
	(c) Explain Fault tolerance methodology with block diagram.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Explain Built-in-test equipment in brief.	<b>03</b>
	(b) Explain Multifunction display with suitable sketch.	<b>04</b>
	(c) Explain how Aircraft and its mission drive the Design of digital avionics system.	<b>07</b>

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