Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII(NEW) EXAMINATION – SUMMER 2019

Subject Code:2170105 **Date:18/05/2019**

Subject Name:Advance 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.**

			MARKS
Q.1	**(a)**	Enlist basic six avionics equipments which are located in cockpit.	**03**
	(b)	Write a short note about SELCAL.	**04**
	(c)	Explain Indian Navigation system in brief with suitable sketch.	**07**
Q.2	**(a)**	Enlist ILLITIES which should be kept in mind while designing Digital avionics system.	**03**
	(b)	Shortly explain Flight data and cockpit voice recorder.	**04**
	(c)	What do mean by "Maintenance by WHO, WHEN and Where"?	**07**
		OR	
	(c)	Explain Working principle of Emergency Locator Transmitter with its mounting requirements.	**07**
Q.3	**(a)**	What is ATLAS? How it is useful in Digital avionics system maintenance?	**03**
	(b)	Write a short note on Multifunction Display.	**04**
	(c)	Explain Fault Detection Methodology in brief with suitable diagram.	**07**
		OR	
Q.3	**(a)**	How Built In Test equipment is useful for maintenance of avionics system?	**03**
	(b)	Compare Digital Avionics System Design Architectures.	**04**
	(c)	Explain Inertial navigation system in brief.	**07**
Q.4	**(a)**	Explain graph of Mean time between Failure Vs Life cycle costs.	**03**
	(b)	Enlist Environmental tests which are carried out on Avionics system.	**04**
	(c)	Explain how the aircraft and its mission drive the avionics system design.	**07**
		OR	
Q.4	**(a)**	What is the use of Central Fault Display System in Maintenance of avionics system?	**03**
	(b)	What do you mean by keeping avionics cool?	**04**
	(c)	Explain integration of Autopilot and flight director system in brief.	**07**
Q.5	**(a)**	Draw a block diagram of Captain's Audio selector panel.	**03**
	(b)	Explain types of Emergency Locator Transmitter.	**04**
	(c)	Explain Microwave Landing system in brief with neat sketch.	**07**
		OR	
Q.5	**(a)**	Write down main three components of Flight management system.	**03**
	(b)	Draw a block diagram of HF radio equipment.	**04**
	(c)	Explain EGPWS with its modes of Operation.	**07**

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