Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII EXAMINATION – WINTER 2015

Subject Code: 170105 **Date: 04/12/2015**

Subject Name: Advance Avionics

Time: 10:30am to 1:00pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain Life Cycle Cost for Digital Avionics	**07**
	(b)	Differentiate between LCC and MTBF	**07**
Q.2	**(a)**	Write Short Notes on : (i) DO-160 (ii) Partitioning	**07**
	(b)	Justify necessity for keeping the avionics cool.	**07**
		OR	
	(b)	Explain Fault Tree Analysis.	**07**
Q.3	**(a)**	Discuss the relation between Mission of Aircraft and Avionics System Design.	**07**
	(b)	Describe utilization of Radio Frequency Spectrum.	**07**
		OR	
Q.3	**(a)**	Mention various elements of ECM and ECCM.	**07**
	(b)	Explain the working principle of a Pulsed Radar.	**07**
Q.4	**(a)**	What do you understand by Failure Mode Analysis	**07**
	(b)	Write Short Notes on (i) Head up display (ii) Night Vision Goggle	**07**
		OR	
Q.4	**(a)**	What is Speech Recogniser? Explain its working in brief.	**07**
	(b)	Discuss future trends of Aircraft Maintenance.	**07**
Q.5	**(a)**	Explain the role of ARINC 429.	**07**
	(b)	Mention the principle of detection of small targets.	**07**
		OR	
Q.5	**(a)**	Explain the role of TCAS in avionics.	**07**
	(b)	What do you understand by Ada 95?	**07**

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