Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 150606 **Date: 15/05/2017**

Subject Name: Disaster Assessment using Geospatial Techniques (Institute Elective-II)

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.**

Q.1	**(a)**	Explain the fundamental steps involved in digital image processing.	**07**
	(b)	What is Disaster? Explain the types of disaster in brief.	**07**
Q.2	**(a)**	What is image enhancement in digital image processing? Explain contrast enhancement in brief.	**07**
	(b)	What is Sensor? Describe Air Born and Space Born sensors.	**07**
		OR	
	(b)	What is Radar? Explain Synthetic Aperture Radar (SAR) in brief.	**07**
Q.3	**(a)**	Explain the working principle of GPS measurements.	**07**
	(b)	What are the applications of and GIS in Disaster management?	**07**
		OR	
Q.3	**(a)**	Explain the advantages and limitations of Remote sensing.	**07**
	(b)	Write a short note on natural disasters.	**07**
Q.4	**(a)**	Write a short note on Spectral Signature.	**07**
	(b)	Explain basics of relief and rescue operation by disaster assessment.	**07**
		OR	
Q.4	**(a)**	What do you understand by ‘map’? State the difference between Thematic Maps and Topographic Maps.	**07**
	(b)	How can geospatial assessment technique minimize the impact of natural disasters?	**07**
Q.5	**(a)**	Write a short note on GPS receivers.	**07**
	(b)	Give a brief idea about GSLV and PSLV.	**07**
		OR	
Q.5	**(a)**	Explain the function of DBMS.	**07**
	(b)	Explain the role of GIS and RS in assessing the impact of floods.	**07**

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