GUJARAT TECHNOLOGICAL UNIVERSITY
ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016

Subject Code: 2721311   **Date: 02/06/2016**

Subject Name: Geo Spatial Techniques

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.**

Q.1	**(a)**	Explain the term GIS. Discuss the history of GIS.	**07**
	(b)	Describe divisions of electromagnetic spectrum and explain suitability of different wavelengths groups for remote sensing.	**07**
Q.2	**(a)**	Prepare a note on the following: 1) Cartography 2) Geodesy	**07**
	(b)	Enlist limitations of GIS system.	**07**
		OR	
	(b)	Enlist functional requirements of GIS system.	**07**
Q.3	**(a)**	Prepare a note on the following: 1) Logical data models 2) Object-oriented data models	**07**
	(b)	What is the process to minimize errors in GIS database?	**07**
		OR	
Q.3	**(a)**	What is meant by spaghetti model and lattice model?	**07**
	(b)	Explain the concept of DBMS and RDBMS with suitable example.	**07**
Q.4	**(a)**	Discuss various map scales used in GIS.	**07**
	(b)	Enlist various types of file formats of spatial data.	**07**
		OR	
Q.4	**(a)**	Explain on nearest neighbor distance concept of point pattern measures.	**07**
	(b)	Enlist the different characteristics of photo interpretation and explain it.	**07**
Q.5	**(a)**	What do you understand by spatial data and attribute data? Explain with examples.	**07**
	(b)	Explain the method of collection of data in remote sensing.	**07**
		OR	
Q.5	**(a)**	What is Digital Terrain Model? Explain its applications.	**07**
	(b)	Explain the methods of computation of the 3D location of GPS receiver.	**07**

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