Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME- SEMESTER II– EXAMINATION – SUMMER 2015

Subject Code: 2721311 **Date: 03/06/2015**

Subject Name: Geo Spatial Techniques

Time: 2:30 PM – 5:00 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)**	What is GIS? Explain the key components of system.	**07**
	(b)	Prepare a detailed note on the applications of GIS.	**07**
Q.2	**(a)**	Describe divisions of electromagnetic spectrum and explain suitability of different wavelengths groups for remote sensing.	**07**
	(b)	Explain the concept of DBMS and RDBMS.	**07**
		OR	
	(b)	Elaborate on the process to minimize errors in GIS database.	**07**
Q.3	**(a)**	Classify and explain the types of image resolution.	**07**
	(b)	What is georeferencing? Why it is important?	**07**
		OR	
Q.3	**(a)**	Define: (A) Geo-informatics, (B) Cartography, (C) Geodesy, (D) Database system, (E) schema, (F) Query, (G) Sequel,	**07**
	(b)	How data capturing process is carried out for GIS?	**07**
Q.4	**(a)**	Differentiate between raster and vector models of GIS.	**07**
	(b)	Elaborate on concept of proximity polygons. Also mention its utility in GIS.	**07**
		OR	
Q.4	**(a)**	What are the advantages and limitations of remote sensing?	**07**
	(b)	Prepare an elaborative note on active remote sensing.	**07**
Q.5	**(a)**	Prepare a detailed note on coordinate system. Enlist various types of it.	**07**
	(b)	What is Digital Terrain Model? Explain its applications.	**07**
		OR	
Q.5	**(a)**	Explain various factors affecting GPS data quality.	**07**
	(b)	Elaborate on spatial data and attribute data.	**07**

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