Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER–V • EXAMINATION – SUMMER • 2015

Subject Code: 2650013 **Date: 11-05-2015**

Subject Name: Geographical Information System (GIS)

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)**	What do you mean by Map Projection? Explain different types with example.	**07**
	(b)	Explain different file structure for data storage.	**07**
Q.2	**(a)**	What is Error in Digitizing Process? Explain Errors for Raster and Vector. Also explain the Rubber Sheeting.	**07**
	(b)	Explain the Input subsystem.	**07**
		OR	
	(b)	Explain vector models.	**07**
Q.3	**(a)**	How to calculate Perimeter and Length of Polygons?	**07**
	(b)	Explain high pass filter and low pass filter.	**07**
		OR	
Q.3	**(a)**	What is the significance of higher level point objects? Explain various methods of computing centroid.	**07**
	(b)	Write a detail note on measuring Polygon Shape.	**07**
Q.4	**(a)**	Explain alpha index and beta index. Explain Gravity Model.	**07**
	(b)	Define Automatic Overlay Process in Raster data structure.	**07**
		OR	
Q.4	**(a)**	Give the example of cartographic model implementation and verification.	**07**
	(b)	Describe Point, line, Polygon overlay on Polygon in both Raster and Vector System.	**07**
Q.5	**(a)**	Write short note on map design control in GIS output.	**07**
	(b)	Explain Logical Data Modeling and Physical Data Modeling.	**07**
		OR	
Q.5	**(a)**	Explain Cartographic Output in detail.	**07**
	(b)	Explain geographic information system coordinate transformation.	**07**

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