Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER-V • EXAMINATION - WINTER 2015

Subject code: 2650013

Subject Name: Geographical Information Systems (GIS)

Time: 10.30 am to 01.00 pm

Date: 10/12/2015

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 alpha index and Gamma index? Explain in detail.	07
	(b)	What is Map Projection? List all types of Projections and explain in detail.	07
	(a) (b)	What is GIS? Explain measurement levels for cartographic objects in GIS. Explain the Raster and Vector methods for representing geographic space.  OR	07 07
	(b)	Explain vector models.	07
Q.3	(a) (b)	Explain methods of compacting raster data to preserve storage.  Explain Metadata and metadata standards.  OR	07 07
Q.3	(a) (b)	Explain Hybrid & Integrated GIS. Explain Remote sensing in detail.	07 07
Q.4	(a) (b)	List all types of Errors. Explain entity errors.  Explain Edge Matching in detail. Also Explain Conflation.  OR	07 07
Q.4	(a) (b)	What is Overlay? Explain line-in-polygon in Raster and Vector. What is Filter? Explain all types of filters in detail.	
Q.5	(a) (b)	Explain Map Design Controls in GIS output. Write a detail note on Geospatial Database Design.  OR	07 07
Q.5	(a) (b)	Explain Nontraditional Cartographic Output.  Explain GIS application s/w development strategies. Also explain s/w testing methodology for GIS applications.	07 07

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