

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-V • EXAMINATION – SUMMER • 2015

Subject Code: 650013

Date: 11-05-2015

Subject Name: Geographical Information System

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 is GIS? Explain the Method for representing geographic space. **07**
(b) Write short note on Grid System. Explain different types with example. **07**
- Q.2** (a) What is spatial measurement level? Explain different type of it with example. **07**
(b) Explain Metadata and Metadata standard with all its categories. **07**
- OR**
- (b) Write short note on Nonlinear interpolation in detail. **07**
- Q.3** (a) Explain DB structures for managing data. **07**
(b) What is alpha index and beta index? Explain Gravity Model with suitable example. **07**
- OR**
- Q.3** (a) Explain Higher level Line object with its different types of network. **07**
(b) How to calculate Perimeter and Length of Polygons? **07**
- Q.4** (a) Explain High pass filter and low pass filter. **07**
(b) Explain different types of buffers of reclassification process. **07**
- OR**
- Q.4** (a) Write short note on kriging and semivariogram. **07**
(b) Explain sliver polygons and wired polygons and Tiling. **07**
- Q.5** (a) Describe point, line, polygon overlay on polygon in both raster and vector system. **07**
(b) Discuss Connectivity and circuitry of Linear Objects. **07**
- OR**
- Q.5** (a) Explain Inductive and Deductive Modeling. **07**
(b) Write short note on Map Design control in GIS output. **07**
