

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M.C.A.- SEMESTER – V • EXAMINATION – WINTER 2012

Subject code: 650013

Date: 29-12-2012

Subject Name: Geographical Information System (GIS)

Time: 10:30 am – 1:00 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 Raster and Vector Errors in Detail. **07**
- (b)** What is GIS? Explain the methods for representing geographic space. **07**
- Q.2 (a)** Explain spatial location and reference. Explain MAP Scale. **07**
- (b)** Describe Metadata and Metadata standard with all its category. **07**
- OR**
- (b)** Explain methods of compacting raster data to preserve storage. **07**
- Q.3 (a)** Explain vector models. **07**
- (b)** Explain Map preparation and Digitization process. **07**
- OR**
- Q.3 (a)** Explain DB structures for managing data. **07**
- (b)** Explain sliver polygons and wired polygons and Tiling. **07**
- Q.4 (a)** Explain how to calculate or measure polygon length, parameter, area. **07**
- (b)** Explain High pass filter and low pass filter. **07**
- OR**
- Q.4 (a)** Write a note on kriging and semivariogram. **07**
- Q.4 (b)** Explain alpha index and beta index. Explain Gravity Model. **07**
- Q.5 (a)** Explain Cartographic Output in detail. **07**
- (b)** Describe Point, line, Polygon overlay on Polygon in both Raster and Vector System. **07**
- OR**
- Q.5 (a)** Explain Inductive and Deductive modeling. **07**
- (b)** What are surfaces? Explain surface mapping. **07**
