

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. Sem. – IInd - Examination – June/July- 2011****Subject code: 1721311****Subject Name: Geo-Spatial Techniques****Date: 01/07/2011****Time: 10:30 am – 01:00 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) Discuss the principle and application of GIS. **07**
(b) Discuss “Geographic co ordinate system of earth”. **07**
- Q.2** (a) What is map projection? Discuss and compare types of map projection according to developable surface of projection. **07**
(b) Describe Georeferencing. **07**
- OR**
- (b) Explain Advantages and limitations of raster based GIS **07**
- Q.3** (a) Explain the concept of a topological map in vector data model. **07**
(b) Briefly explain Accuracy, Error and uncertainty. **07**
- OR**
- Q.3** (a) Write a short note on Spatial Autocorrelation. **07**
(b) Explain buffering. **07**
- Q.4** (a) Discuss briefly components of Geographic Data Quality. **07**
(b) Explain Applications of digital terrain models **07**
- OR**
- Q.4** (a) Compare vector data model and raster data model. **07**
(b) Write short note on Image-to-Map Rectification. **07**
- Q.5** (a) What is GPS? Explain functional segments of GPS. **07**
(b) Describe application of GPS. **07**
- OR**
- Q.5** (a) Briefly describe application of Remote sensing. **07**
(b) Explain principle of electro magnetic remote sensing. **07**
