

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – WINTER • 2014****Subject Code: 150606****Date: 08-12-2014****Subject Name: Disaster Assessment using Geospatial Techniques****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) How can geospatial assessment technique be helpful for minimizing the impact of an earthquake? **07**
- (b) Explain the role of GIS and RS in assessing the impact of floods. **07**
- Q.2** (a) Explain basic concept of Metadata? Mention its importance in GIS in detail. **07**
- (b) Explain the function of DBMS. **07**
- OR**
- (b) Describe imaging with microwave radar. **07**
- Q.3** (a) Explain different resolutions with their significance. **07**
- (b) Explain 'vector data model' and 'raster data model' in GIS? **07**
- OR**
- Q.3** (a) What do you mean by image enhancement in digital image processing? Write in detail about contrast enhancement **07**
- (b) Explain how adjusting brightness and contrast helps in revealing more details in an image. **07**
- Q.4** (a) Explain Synthetic Aperture Radar (SAR). **07**
- (b) Write short notes on:
1. Graphic representation of GIS data **07**
2. GPS receivers
- OR**
- Q.4** (a) Why is it necessary to find out errors of GPS? Explain atmospheric error and Satellite clock error in detail. **07**
- (b) Enlist the various spatial and non spatial data that need to be collected for GIS analysis for land slide studies in a hilly area and for damage caused due to floods. Explain how each parameter is helpful in doing the study **07**
- Q.5** (a) What do you understand by 'map'? Differentiate between topographic and thematic map. **07**
- (b) What is Sensor? Describe Air Born and Space Born sensors. **07**
- OR**
- Q.5** (a) Give a brief idea about GSLV and PSLV. **07**
- (b) Explain platforms of remote sensing. **07**
