

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**
