

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-Vth Examination December 2010

Subject code: 150606

Subject Name: Disaster Assessment using Geospatial Techniques

Date: 21 /12 /2010

Time: 03.00 pm - 05.30 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 basic concepts and principles of remote sensing. **07**
(b) Explain different components of GIS. **07**

Q.2 (a) What are the atmospheric windows? Write their significance. **07**
(b) Explain air borne and space borne sensors. **07**

OR

(b) What do you understand by 'map'? Differentiate between topographic and thematic map. **07**

Q.3 (a) What do you understand by spectral signature? **07**
(b) Explain 'vector data model' and 'raster data model' in GIS? **07**

OR

Q.3 (a) Explain different resolutions with their significance. **07**
(b) Explain functioning and basic working principle of GPS. **07**

Q.4 (a) Explain the systems of image classification in remote sensing. **07**
(b) Describe imaging with microwave radar. **07**

OR

Q.4 (a) Explain Remote sensing and GIS synergy. **07**
(b) Explain Synthetic Aperture Radar (SAR). **07**

Q.5 (a) Explain the role of GIS and RS in assessing the impact of floods. **07**
(b) Write salient features of GIS tool GeoMedia or ArcMap. **07**

OR

Q.5 (a) How can Geospatial assessment techniques minimize the impact of natural disasters? **07**

(b) Write salient features of remote sensing tool ENVI or ERDAS. **07**
