

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- Vth SEMESTER-EXAMINATION – MAY/JUNE - 2012****Subject code: 150606****Date: 07/06/2012****Subject Name: Disaster Assessment using Geospatial Techniques****Time: 02:30 pm – 05:00 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) Define Remote Sensing. Explain its advantages and limitations. **07**
(b) Give a brief idea about GSLV and PSLV. **07**

- Q.2** (a) What is Sensor? Describe Air Born and Space Born sensors. **07**
(b) What do you know about IRS series? Explain in brief. **07**

OR

- (b) Write a note on: i) Weather sensors, ii) Spectrometers **07**

- Q.3** (a) Explain systematic corrections and non-systematic corrections with example. **07**
(b) What do you understand by GIS? Give brief explanation of it. Also explain various components of it. **07**

OR

- Q.3** (a) Explain different functions and basic working principles of GPS? **07**
(b) Explain basic concept of Metadata? Mention its importance in GIS in detail. **07**

- Q.4** (a) Why is it necessary to find out errors of GPS? Explain atmospheric error and satellite clock error in detail. **07**
(b) What are the advantages of GIS over map and Computer Aided Designs? **07**

OR

- Q.4** (a) Describe supervised classification. What are the steps involved in supervised classification? Give detailed explanation of each step. **07**
(b) Write a short note on: i) ESRI, ii) Network analysis. **07**

- Q.5** (a) Why analysis of Geospatial Data is required? Enumerate the methods used for the same and explain each method in short. **07**
(b) What are the data sources of sources of GIS? Give an idea of each of them. **07**

OR

- Q.5** (a) Explain Raster data model with its detailed classification. **07**
(b) “Remote Sensing and GIS software are useful for assessment of Natural Disasters”. Prove this statement true with brief description of at least two examples. **07**
