

GUJARAT TECHNOLOGICAL UNIVERSITY
M.E.- SEMESTER-I • EXAMINATION – SUMMER • 2014

Subject Code: 711206N**Date: 24-06-2014****Subject Name: Remote Sensing and Its Applications****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) What do you understand by electromagnetic spectrum? Enlist various regions which are of some use in water resources management with their wavelengths. **07**
(b) What is multi spectral remote sensing? Explain it through sketches. **07**
- Q.2** (a) Explain ‘signatures’ pixel size and scale. **07**
(b) Explain elements of visual interpretation in detail. **07**
OR
(b) Explain digital image processing in detail. **07**
- Q.3** (a) Explain side looking air borne radar system (SLAR). **07**
(b) Explain supervised and unsupervised image classification. **07**
OR
- Q.3** (a) Explain image classification and analysis. **07**
(b) Explain Remote sensing and GIS synergy. **07**
- Q.4** (a) Describe imaging with microwave radar and show its usefulness in WRM. **07**
(b) Write a note on ENVI or ERDAS packages. **07**
OR
- Q.4** (a) Explain different resolutions with their significance. **07**
(b) Explain thermal infra red remote sensing and detectors. **07**
- Q.5** (a) How remote sensing is used in management of watersheds? **07**
(b) Explain satellite characteristics, orbits and swath. Also discuss Instantaneous Field of View. **07**
OR
- Q.5** (a) Mention the role of remote sensing in environmental audits. **07**
(b) Explain Indian remote sensing program and also discuss characteristics of different space satellites. **07**
