

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014****Subject code: 2713304****Date: 12-01-2015****Subject Name: Remote Sensing and Its Application****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) Describe the role of remote sensing in Water Resources Engineering with suitable example. **07**
 (b) Signify the role of spectral reflectance curves in remote sensing .Support your answer with spectral reflectance curves of Soil and vegetation. **07**
- Q.2** (a) Enlist and explain the advantages and limitations of remote sensing applications. **07**
 (b) Enlist and explain various components of Remote sensing. **07**
- OR**
- (b) Explain the following: **07**
 (1) Spectral Resolution (3) Spatial Resolution (3) ISRO
- Q.3** (a) What does image interpretation mean? Explain various elements of image interpretation. **07**
 (b) Differentiate **07**
 (1) Active and Passive Remote Sensing
 (2) Airborne and Space borne Platforms of remote sensing.
- OR**
- Q.3** (a) Write short notes on: **07**
 (1) Ground Truth (2) Map Digitizer
 (b) Enlist various softwares used for remote sensing applications. Explain any one in detail with its features and capabilities. **07**
- Q.4** (a) Enlist various applications of remote sensing in Hydrology and explain one in detail. **07**
 (b) How do you see the role of GIS in Civil Engineering applications of remote sensing **07**
- OR**
- Q.4** (a) Enlist various applications of remote sensing in Construction Management and explain one in detail. **07**
 (b) How do you see the role of GPS in Civil engineering applications of remote sensing **07**
- Q.5** (a) Write Short note on : **07**
 (1) Multi temporal images (2) Image Enhancement
 (b) Describe Supervised and Unsupervised classification and its applications in remote sensing. **07**
- OR**
- Q.5** (a) Write short note on: **07**
 (1) EMR Spectrum (2) True and False Colour Composite
 (b) Write short note on: **07**
 (2) Spectral Signature (2) Filtering
