

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Subject code: 711206N

Date: 05-12-2014

Subject Name: Remote Sensing and Its Application

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) Define Remote Sensing and Explain its Principles in details. 07
(b) Explain the terms supervised and unsupervised classification with suitable example. 07
- Q.2** (a) Enlist Various Applications of Remote Sensing in Water Resources and Explain any one in detail. 07
(b) Explain the significance of spectral reflectance Curves in Remote Sensing .Draw and discuss the spectral reflectance curves for Soil, Water and vegetation. 07
- OR**
- (b) Enlist and justify the various advantages and disadvantages of Remote Sensing. 07
- Q.3** (a) How GPS Can be integrated with Remote Sensing. Support your answer with one of the application of water resources management. 07
(b) Write Short note on : 07
(1) Multi temporal images (2) Image Enhancement
- OR**
- Q.3** (a) Enlist and explain various elements of Image interpretation in brief. 07
(b) What is SLAR ? Explain the working of SLAR. 07
- Q.4** (a) Explain various functions of software used in Remote Sensing Support your answer with one of the application of water resources in brief. 07
(b) Differentiate 07
(1) Active and Passive Remote Sensing
(2) Across Track Scanning & Along Track Scanning
- OR**
- Q.4** (a) Enlist various softwares used in Remote Sensing with their salient features and capabilities. 07
(b) Write Short note on 07
(1) True and False Colour Composite
(2) Integration of GIS in Remote Sensing.
- Q.5** (a) Explain various types of sensors and platforms used in remote sensing. 07
(b) Explain the significance of terms Image Rectification and Ground truth in remote sensing. 07
- OR**
- Q.5** (a) What do you know about National Remote Sensing Centre (NRSC) and Indian Space Research Organization (ISRO). 07
(b) Explain the following Terms: 07
(1) Radiometric resolution (2) Spectral Resolution (3) Spatial Resolution
