

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME – SEMESTER I (OLD) – • EXAMINATION – SUMMER 2016

Subject Code: 711206N

Date: 21/05/2016

Subject Name: Remote Sensing & Its Application

Time: 02:30 pm to 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)** How does remote sensing work? Explain with neat sketch. **07**
(b) Enlist and explain various advantages of Remote sensing and GIS. **07**
- Q.2 (a)** Discuss the terms EMR Spectrum and Spectral signature in detail **07**
(b) Discuss the application of remote sensing for water resources management. **07**
- OR**
- (b)** Discuss the application of GIS for water resources management. **07**
- Q.3 (a)** Discuss the application of remote sensing and GIS in planning of water supply distribution network **07**
(b) Explain about integrated application of remote sensing and GIS for flood forecasting. **07**
- OR**
- Q.3 (a)** Differentiate between Supervised and Unsupervised classification with example **07**
(b) Explain the need of image enhancement. Also describe the process of image enhancement. **07**
- Q.4 (a)** Differentiate between Raster and Vector Model. **07**
(b) Write short note on following terms of remote sensing : **07**
(1) Energy interaction with atmosphere (2) Digital image processing
- OR**
- Q.4 (a)** Differentiate spatial resolution and spectral resolution with suitable example. **07**
(b) Discuss about Active and Passive remote sensing. **07**
- Q.5 (a)** Enlist various softwares used for remote sensing application. Explain any one and its features in detail. **07**
(b) Write short note on : **07**
(1) Ground truth (2) Airborne and space borne platform
- Q.5 (a)** Enlist various softwares used for GIS application. Explain any one and its features in detail. **07**
(b) Explain the Multispectral and Multi temporal Images and its application **07**
