

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER – III (New)– EXAMINATION – WINTER-2019

Subject Code: 3730507

Date: 16-11-2019

Subject Name: Remote Sensing

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) Explain the effect of absorption and scattering with respect to Remote Sensing in detail. **07**
(b) Explain opt-mechanical electro optical sensor and their working in brief. **07**
- Q.2** (a) Explain energy interaction with surface features in detail **07**
(b) Explain types and characteristics of different platforms: LANDSAT, SPOT, IRS **07**
OR
(b) Explain multispectral scanners in brief. **07**
- Q.3** (a) Explain color IR film and their characteristics. **07**
(b) Write short note on photographic products **07**
OR
- Q.3** (a) Explain altimeter LiDAR remote sensing **07**
(b) Explain atmospheric influence on spectral response pattern in brief. **07**
- Q.4** (a) Explain real aperture and synthetic aperture of RADAR **07**
(b) Explain principal of spectroscopy, further explain imaging spectroscopy **07**
OR
- Q.4** (a) Write short note on thermal sensors. **07**
(b) Explain radiometric and spectral resolution in detail. **07**
- Q.5** (a) Explain how image enhancement and image classification techniques uses in remote sensing. **07**
(b) Explain Aerial Laser Terrain Mapping. **07**
OR
- Q.5** (a) Explain derivative spectrometry in brief. **07**
(b) Compare multispectral scanners and thermal scanners in detail. **07**