

2024
M.Sc.
Fourth Semester
CORE – 12
GEOLOGY
Course Code: MGLC 4.21
(Remote Sensing & GIS)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. What is a spectral response curve? Explain the significance in identifying and distinguishing features in the imagery. 2+12=14
2. Write notes on the following: 7×2=14
 - (a) Electromagnetic spectrum
 - (b) Tone and shadow

UNIT-II

3. What is stereoscopy? Explain the procedures to create stereoscopic viewing. 2+12=14
4. Write notes on the following: 7×2=14
 - (a) Photography according to orientation of camera axis
 - (b) Principles of photo mosaics

UNIT-III

5. What are the main components of a satellite? How do they function to perform their task? 14
6. Write notes on the following: 7×2=14
 - (a) LANDSAT
 - (b) SPOT

UNIT-IV

7. Explain how image enhancement improve the interpretability of satellite imagery. 14
8. Write notes on the following: $7 \times 2 = 14$
- (a) Digital image processing
 - (b) Radiometric correction

UNIT-V

9. What are raster and vector data? How do they differ in terms of data representation? $7 + 7 = 14$
10. Write notes on the following: $7 \times 2 = 14$
- (a) Application of GPS
 - (b) Map projection
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