April 2025
B.A./B.Sc.
Sixth Semester
CORE – 14
GEOLOGY
Course Code: GLC 6.21
(Remote Sensing & GIS)

Total Mark: 70 *Pass Mark: 28*
Time: 3 hours

Answer five questions, taking one from each unit.

UNIT–I

1. Discuss the different types of aerial photography based on the orientation of the camera axis and on their spectral characteristics. 7+7=14

2. Write a note each on the following: 7×2=14
   (a) Scale of aerial photography
   (b) Radiometric resolution

UNIT–II

3. What are some common satellites used for remote sensing and their characteristics? 14

4. Write a note each on the following: 7×2=14
   (a) Across-track scanner
   (b) Size and shape in air photo interpretation

UNIT–III

5. Explain the concepts of radiometric and geometric correction in image pre-processing. 14

6. Write a note each on the following: 7×2=14
   (a) Image reduction
   (b) Image rationing

UNIT–IV

7. Explain the role of GIS in mapping and managing natural resources. 14

8. Write a note each on the following: 7×2=14
   (a) Datum
   (b) Spatial data models

UNIT–V

9. Explain how GPS improves the accuracy of field data collection in geoscience research. 14

10. Write a note each on the following: 7×2=14
    (a) Constellation for GPS accuracy
    (b) Control segment
