

2025

M.Sc. 3rd Semester Examination
REMOTE SENSING AND GIS

Paper : RSG - 307 C

(Application of Geo-informatics in Earth Science)

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.
Illustrate the answers wherever necessary*

Group - A

1. Answer any *two* questions : 2×2=4
- (a) How does a DTM differ from a Digital Elevation Model (DEM)?
 - (b) What is lithological discrimination?
 - (c) What is hydro-geomorphology?
 - (d) Mention any two data layers used in mineral targeting.

P.T.O.

(2)

Group - B

2. Answer any *two* questions : 4×2=8

- (a) Which terrain parameters are most critical for dam site selection?
- (b) What factors are important in determining the alignment of a Canal?
- (c) What is the purpose of landslide hazard zonation mapping?
- (d) Explain the concept and workflow of multivariate analysis in spatial data modelling.

Group - C

3. Answer any *one* question : 8×1=8

- (a) What are the major factors influencing landslide occurrence, and how can remote sensing data be used to assist in landslide hazard zonation studies?
- (b) Define Flood Hazard Zonation (FHZ) and explain its significance in floodplain management. Discuss the hydrological, geomorphological, and meteorological parameters that influence flood hazard mapping.

Internal Assessment : 5 marks
