

2025

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

Paper : RSG - 301

(Application of Geo-Informatics)

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) Define natural hazard and natural disaster and how do they differ?
- (b) List the major factors that trigger landslides.
- (c) What satellite sensors are commonly used for flood mapping?
- (d) Define meteorological, agricultural, and hydrological drought.

P.T.O.

Group - B

2. Answer any *two* questions : 4×2=8

- (a) Define urban sprawl and explain method to map built-up areas using remote sensing.
- (b) Explain the role of remote sensing in surface water assessment.
- (c) What is canopy cover and why is it important in forest monitoring and name remote sensing techniques used for forest type identification.
- (d) Differentiate between surface fire, crown fire, and ground fire and name satellite sensor commonly used to detect forest fires.

Group - C

3. Answer any *one* question : 8×1=8

- (a) How can remote sensing data be used to estimate the damage caused by cyclone.
- (b) Evaluate the challenges of crop inventory mapping using optical and microwave data and compare the effectiveness of different machine learning techniques, such as Random Forest and Support Vector Machine for crop type identification.

Internal Assessment : 5 marks
