

2025

M.Sc. 1st Semester Examination

REMOTE SENSING AND GIS

Paper : RSGC402X0

(Platforms and Sensors)

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

Answer any *two* questions : $2 \times 2 = 4$

1. Name satellites and respective sensors which do NOT depend on the Sun.
2. What is meant by sun-synchronous orbit (SSO)?
3. State the Kepler's law of equal areas.
4. How does LIDAR "see" through trees?

Group - B

Answer any *two* questions : $4 \times 2 = 8$

5. How are Kepler's Laws used in determining satellite positions and orbital dynamics?

P.T.O.

(2)

6. Write a short note on whiskbroom and push-broom scanners.
7. Write a short note on RADAR system.
8. Compare between multispectral and hyper-spectral sensors with examples.

Group - C

Answer any *one* question : $8 \times 1 = 8$

9. Explain the interaction of electromagnetic radiation with the Earth's surface for passive and active systems.
10. Explain the characteristics of satellite orbits and their different types with neat sketches.

Internal Assessment - 5 marks
