

2025

M.Sc. 1st Semester Examination
REMOTE SENSING AND GIS

Paper : RSGC403X0

(Fundamentals of Geographic Information System)

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 : 2×2=4

1. Which order of polynomial transformation would you use for geo-referencing a hilly terrain, and how many ground control points (GCPs) are required for that?
2. What are the features of free and open source software?
3. Differentiate between personal and file geodatabase.
4. What is Topology?

P.T.O.

(2)

Group - B

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

5. Explain different types of digitization errors with suitable illustration.
6. Write a brief note on applications of 3D and mobile GIS.
7. What are the salient features of vector data structure?
8. Discuss about different techniques of map generalization with suitable illustration.

Group - C

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

9. Discuss the sources of spatial and attribute data in GIS.
What do you mean by semi-automated digitization? $5+3$
10. What are the fundamental components of GIS? Explain how GIS is applied across different sectors. Provide real-world examples to illustrate your points. $4+4$

Internal Assessment - 5 marks
