PG/IIS/RSG/206/25

M.Sc. 2nd Semester Examination, 2025

REMOTE SENSING AND GIS

(*Advanced GIS Data Analysis*)

PAPER – RSG-206

Full Marks : 25

Time : 1 hour

Answer **all** questions

The figures in the right hand margin indicate 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

1. What is uncertainty in GIS data ?

2. Define topological data structure.

3. Mention one source of error due to natural variation in GIS data.

4. Define run-length coding.

GROUP–B

Answer any **two** questions : 4×2

5. What is positional accuracy ? How is it evaluated in GIS ?

6. Define Buffer and sketch different types of Buffer.

7. Write a short note on the relational database model with a diagram.

8. Compare the Spaghetti model and Topological model of GIS data storage.

GROUP – C

Answer any **one** question : 8×1

9. Explain the three main types of database models—hierarchical, network, and relational —with examples and comparisons. 4 + 4

10. Explain the concept of logical consistency. How is it maintained in a GIS database ? 4 + 4

[Internal Assessment – 5 Marks]