

M. Sc. 1st Semester Examination, 2024

REMOTE SENSING AND GIS

(Fundamentals of Geographic Information System)

PAPER — RSG-103

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 from the following :

1. Discuss the implications of Web GIS, providing a suitable example. 2 × 2

2. What is meant by a geodatabase ?
3. What are the limitations of GIS ?
4. Differentiate between topographic and thematic maps.

GROUP-B

Answer any **two** questions from the following :
4 × 2

5. Which order of polynomial transformation would you use for geo-referencing a homogeneous river plain and how many ground control points (GCPs) are required for that ?
6. Briefly discuss the different sources of spatial data in GIS.
7. Convert the following dataset into BIL and BIP formats :

(3)

2	1	3	4
8	7	6	2
1	5	1	1
4	6	1	9
6	2	2	7
9	5	1	8

8. Briefly describe the different components of GIS.

GROUP—C

Answer any **one** question from the following :

9. Differentiate between raster and vector data structure with suitable illustration. 8×1
10. Critically explain semi-automated and automated digitization techniques. Briefly discuss digitizations errors, along with a clear sketch. $4 + 4$

[Internal Assessment — 05 Marks] -

