

M.Sc. 2nd Semester Examination, 2023

REMOTE SENSING AND GIS

(Advanced Geographic Information System)

PAPER – RSG-203.1 & 203.2 (New Syllabus)

Full Marks : 40

Time : 2 hours

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

PAPER – RSG 203.1

(GIS Data Analysis)

[Marks : 20]

GROUP – A

Answer any two questions : 2×2

1. What do you mean by 'overlay analysis' ?
2. What do you mean by positional accuracy ?
3. Define Attribute data in GIS.
4. Define Spaghetti data model in GIS.

GROUP – B

Answer any two questions : 4×2

5. Distinguish between Hierarchical and Relational Models in GIS. 4
6. What is TIN ? How are TINs constructed ? $2 + 2$
7. Discuss Quadtree data model with diagram. 4
8. Discuss Run length encoding with diagram. 4

GROUP – C

Answer any one question :

8 × 1

9. Why is topology important for geospatial data process ?
10. Describe the major possible errors in GIS database.

PAPER – RSG 203.2

(*Modelling Spatial Database and Analysis*)

[Marks : 20]

GROUP – A

Answer any two questions :

2 × 2

11. What do you mean by Geo-database ?
12. What is spatial modelling ?
13. What are the importance of Network dataset ?
14. What is spatial autocorrelation ?

GROUP – B

Answer any two questions : 4 × 2

15. Write a short note on spatial interpolation.
16. Briefly discuss about different surface model.
17. Explain shortly map algebra operator and operations.
18. Write a note on overlay operation in GIS.

GROUP – C

Answer any one question : 8 × 1

19. Discuss different types of Geo-databases used in GIS with example and their importance.
 20. Explain different spatial queries and measurement for spatial analysis.
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