MAY 2025 **P/ID 4437/PGE2F**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions in 50 words each.

1. Provide a brief note on Attribute Data.

2. Define a spatial referencing system.

3. Briefly discuss the uses of DBMS in spatial data.

4. Define Spatial Data Structure.

5. Explain Boolean Operators in the context of spatial data.

6. What does DSM (Digital Surface Model) mean?

7. Differentiate Nodes and Edges.

8. Explain the concepts of Overshoot and Undershoot.

9. Give a brief note about Web GIS.

10. Provide a brief overview of Data Security.

11. Provide a short note on Animated Map.

12. Define Absolute Accuracy in geospatial terms.

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions in 250 words each.

13. Describe the main components of a GIS

14. Discuss spatial data structures and their applications

15. Explain the factors that contribute to spatial data quality.

16. Provide examples of spatial queries and their applications.

17. Describe the steps involved in reclassifying spatial data.

18. Provide examples of real-world applications of surface analysis in GIS.

19. Discuss the advantages of using GIS in urban planning.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions in 500 words each.

20. Describe methods for detecting and rectifying errors in spatial data.

21. Explain the concept of topology in spatial data modeling

22. How does a DBMS facilitate the storage and retrieval of spatial and attribute data in GIS?

23. Explain the importance of spatial interpolation in handling unevenly distributed spatial data.

24. Discuss the advantages of using GIS in Disaster Risk planning.

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