2023

GEOGRAPHY — HONOURS

Paper : CC-12

(Remote Sensing, GIS and GNSS)

Full Marks : 50

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words
as far as practicable.

Group - A

Answer *any five* of the following questions (each within **50** words). 2×5

1. Define raster data.

2. Define swath.

3. What is a standard FCC?

4. What is SRTM?

5. What is topology?

6. What is differential GPS?

7. What are the two main carrier frequencies of GPS?

Group - B

Answer *any four* of the following questions (each within **150** words). 5×4

8. Explain various interactions of incident EM energy with the atmosphere.

9. What are the advantages and disadvantages of remote sensing?

10. State the different types of resolution of a sensor.

11. Distinguish between supervised and unsupervised classification of satellite data.

12. Explain the concept of buffer zone in GIS mentioning its significance in spatial analysis.

13. State the various factors that affect the accuracy of GNSS positioning.

Please Turn Over

Group - C

Answer *any two* of the following questions (each within **500** words). 10×2

14. Explain the spectral reflectance characteristics of water and vegetation in different spectral bands.

15. Discuss the relative advantages and limitations of SRTM and CartoDEM over Survey of India topographical maps.

16. Explain the principles and significance of overlay analysis in GIS.

17. Explain the working principles of GPS.

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