

2025

**M.Sc. 1st Semester Examination**  
**REMOTE SENSING AND GIS**

**Paper : RSGC404X0**  
**(Digital Cartography)**

**Full Marks : 25**

**Time : One Hour**

*The figures in the margin indicate full 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=4**

1. Compare between topographic and thematic maps.
2. How many zones are there in the UTM projection and what is the spatial extent of each zone?
3. What types of mapping techniques would you use for representing soil type and soil pH?
4. What is meant by geospatial data?

**P.T.O.**

( 2 )

**Group - B**

Answer any *two* questions :  $4 \times 2 = 8$

5. What do you mean by discrete and continuous data? Explain their mapping techniques with illustration.
6. Write a short note on the visual variables. How they are used in representing qualitative and quantitative data?
7. Briefly mention the utility of isarithmic mapping in digital cartography.
8. What do you mean by bivariate and multivariate mapping? Mention the applications of dasymetric mapping.

**Group - C**

Answer any *one* question :  $8 \times 1 = 8$

9. Elucidate the different measurement scales used in geographic variable analysis : nominal, ordinal, interval, and ratio scales. Provide examples of data types suitable for each scale and discuss how the choice of scale influences data analysis and visualization in GIS. 5+3
10. Discuss the concept of digital cartography, highlighting its advantages and disadvantages. Explain the significance of coordinate systems and map projections in GIS, focusing on the Lambert Conformal Conic (LCC). 5+3

**Internal Assessment - 5 marks**

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