

**2017**

**M.Sc.**

**1st Semester Examination**

**REMOTE SENSING AND GIS**

**PAPER—RSG-102**

**Subject Code—34**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

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

*Illustrate the answers wherever necessary.*

*Use Separate answer book for each Group.*

**Group-A**

**(Fundamentals of Geographic Information System)**

[Marks : 20]

Answer any two questions.

2×10

1. What are the basic characteristics of GIS ?

Give a brief account on different areas of GIS application.

What are the major limitations of GIS ?

3+5+2

*(Turn Over)*

2. Differentiate between spatial and attribute data.  
Explain the three major file organization methods with suitable example. 3+7
3. Differentiate between raster and vector data structure with suitable illustration.  
What are the sources of primary data in GIS? 8+2
4. Briefly discuss about different types of errors occurring during digitization. Explain the procedure of semi-automated digitization. What do you mean by topology? 5+3+2

### **Group-B**

#### **(Digital Cartography)**

[Marks : 20]

Answer any *two* questions. 2×10

1. Give a brief account on the concept of digital cartography. State the advantages of digital cartography over conventional cartographic techniques. 4+6

2. Differentiate between Large scale and small scale map. Give specific examples in this regard. Distinguish between Nominal and Ordinal scales. 3+2+5
3. (a) What do you mean by multivariate and dynamic mapping?
- (b) What is 'Generalization in Cartography'?
- (c) What are different items that you would include in case of composition of a map? 5+2+3
4. Write short notes on the following topics :
- (a) Thematic *vs.* topographic map ;
- (b) Qualitative *vs.* quantitative data ;
- (c) Digital *vs.* analog map ;
- (d) Discrete *vs.* continuous data. 4×2 $\frac{1}{2}$
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