2016

M.Sc. 1st Semester Examination

REMOTE SENSING & GIS

PAPER—RSG-102

Full Marks : 40

Time : 2 Hours

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

(Fundamental of Geographic Information System)

[Marks : 20]

Answer any *two* questions.

1. Define GIS.

   What are the graphic elements of GIS ?

   Briefly discuss different components of GIS.   2+3+5

(Turn Over)

3. What do you mean by geodatabase ?

Mention the major limitations of GIS.

Convert the following datasets into BIL and BIP format

Band 1		
97	110	59
32	17	49
121	9	18

Band 2		
24	91	171
29	16	89
11	7	131

Band 3		
72	59	125
29	13	9
47	19	28

3+3+4

3. What is GCP ?

Explain the process of Edge matching and Rubber sheeting with suitable illustration.

Briefly discuss different sources of primary and secondary datasets in GIS.   2+3+5

4. Critically explain different methods of digitization.

What do you mean by transformation of data set in GIS ?

What are overshoot and undershoot ?   5+3+2

Group-B

(Digital Cartography)

[Marks : 20]

Answer any *two* questions.

1. Define map.

   Differentiate topographic and thematic map.

   Briefly discuss the process of map generalization.

   2+3+5

2. What do you mean by digital cartography and how it is distinguished from conventional cartographic techniques ?

   Discuss advantages and disadvantages of digital cartography.   3+7

3. Categorize map according to levels of measurement and explain.

   What is dynamic mapping ?

   Which variables are essentially considered during map composition ?   6+2+2

(Turn Over)

4. Write notes on following topics :

(a) UTM projection ;

(b) Cadastral map ;

(c) Thematic map ;

(d) WGS 84 ;

(e) Secondary data.   **2×5**

———