2013

M.Sc.

1st Semester Examination

REMOTE SENSING & GIS

PAPER—RSG-101

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.

Group—A

[Surveying and Projection]

(Marks—20)

Answer any *two* questions from the following :

1. Explain the method of hydrographic survey for preparation of a bathymetric chart of the nearshore area or estimation of discharge of a channel reach. 10

2. Explain the properties of Polyconic Projection, and UTM projection. 5+5

3. What do you mean by conventional field survey techniques ?

Briefly point out the importance of Triangulation survey for the preparation of topographical map.

What are the conventional instruments you would like to use for accuracy assessment of a cadastral map survey ?

3+4+3

4. Write Short Notes on (any *two*) : 5+5

(a) Cylindrical map projection;

(b) Map accuracy standards;

(c) Cadastral map;

(d) Distortions in map projection;

(e) Principle of Prismatic Compass Survey.

Group—B

[Cartography and Digital Mapping]

(Marks—20)

Answer any *two* questions from the following.

1. How does the shape and density of contour lines determine different geographical features in topographical sheet? Explain with suitable illustration.

Compare the advantages and disadvantages of choropleth and isopleth maps.

6+4

2. Differentiate the nominal, ordinal and interval scale with suitable example

What do you mean by qualitative and quantitative map?

Explain the utility of multivariate mapping in GIS environment.

4+3+3

3. Briefly discuss the raster and vector data model with suitable diagram.

Why digital cartography has become popular over hand cartography in recent days?

6+4

4. Briefly discuss different methods of primary and secondary data capture.

Illustrate different types of digitization errors.

What do you mean by primary and secondary data ?

4+3+3

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