

**M.Sc. 1st Semester Examination, 2010**

**REMOTE SENSING AND GIS**

**PAPER—RSG-101 (Gr.- A/B)**

*Full Marks : 40*

*Time : 2 hours*

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

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

*Illustrate the answers wherever necessary*

**GROUP—A**

**[ Marks : 20 ]**

**Answer any two questions**

1. What is Hydrographic survey ? How the Discharge estimation of a River, and preparation of bathymetric chart are followed by conventional methods ? 3, + 3 + 4

( 2 )

2. Discuss the method of geomorphological mapping with conventional Field survey techniques using dumpy level, prismatic compass and clinometer. 10
3. (a) Identify the properties of UTM projection.
- (b) Define Great Circle.
- (c) What are the properties of cylindrical projection? 5 + 2 + 3
4. (a) What is the significance of georeferencing?
- (b) Calculate the RMS value of the resulting accuracy. 5 + 5

GROUP—B

( *Cartography and Digital Mapping* )

[ Marks : 20 ]

Answer any two questions

5. What is map design ? Briefly discuss the map design processes in cartography. What do you mean by map art work ? 2 + 6 + 2

6. What is the basic difference between chorocromatic map and choropleth map? What are the characteristics of geographical information and how are they protrayed in a map? What is scale factor in map? 2 + 4 + 2 + 2
7. (a) Discuss very briefly about the different types of database and it's importance in the field of cartography.
- (b) What is graphic communication? What are the main principles to develop a proper graphic communication? 5 + 5
8. Write short notes on any *four* of the following :  $2\frac{1}{2} \times 4$
- (i) Digitization
- (ii) Raster data structure
- (iii) Scientific view of cartography
- (iv) Dot mapping

**( vi ) Nominal scale**

**( vii ) Rectification**

**( viii ) Thematic mapping.**

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