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GEOGRAPHY

(Major)

Paper : 5.3

(Cartographic and Quantitative Methods)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Answer the following questions : $1 \times 7 = 7$

   (a) What is meant by bearing?

   (b) Which map projection is useful for showing equatorial region?

   (c) Mention two important functions of a theodolite.

   (d) Mention one limitation of arithmetic mean.

   (e) What is Dumpy level?

(*Turn Over*)

(f) What is meant by 'measure of dispersion'?

(g) What is coefficient of determination?

2. Answer the following questions in brief : 2×4=8

(a) What is surveying?

(b) Mention two limitations of Zenithal Polar Gnomonic Projection.

(c) Mention the shape and size of the earth.

(d) Define random sampling with an example.

3. Answer any *three* of the following questions :

5×3=15

(a) What is a map? Classify maps with examples. 1+4=5

(b) With necessary illustrations, distinguish between plane surveying and geodetic surveying. 5

(c) Explain with appropriate diagrams the principles of constructing any Zenithal group of map projection. 5

(d) Briefly discuss the applications of correlation and regression analysis in geographical study. 5

(Continued)

(e) What is 'Quantification in Geography'? Briefly explain its need in geographical study with examples. 1+4=5

4. *(a)* What is thematic map? Describe its different types with examples. 1+9=10

Or

(b) What is levelling? Explain the principles and procedure of profile levelling with Dumpy level. 2+8=10

5. *(a)* Describe the basic properties, uses and limitations of conical group of map projections. 10

Or

(b) Distinguish between 'central tendency' and 'dispersion'. Explain the application of the measures of dispersion with examples. 3+7=10

6. *(a)* What is meant by probability sampling? Discuss about the utilities of three different probability sampling techniques in geographical data collection. 2+8=10

Or

(b) What is 'Time Series Data'? Explain the techniques of analysing such data relating to geographical phenomena.

2+8=10

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