

2016

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 : 1×7=7
- (a) What is the formula to find out the surface area of the earth?
 - (b) What is the meaning of orthomorphism?
 - (c) What is an 'alidade'?
 - (d) What is polar coordinate system?
 - (e) What is meant by 'bearing'?

- (f) If the value of coefficient of correlation between two variables X and Y is 0.6 , what is its coefficient of determination?
- (g) Write the formula to compute mean deviation.

2. Answer the following questions in brief : $2 \times 4 = 8$

- (a) Define geodetic surveying.
- (b) What is base map?
- (c) Mention two properties of arithmetic mean.
- (d) Mention two utilities of conical group of map projections.

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

$5 \times 3 = 15$

- (a) Briefly explain the techniques of point data representation in thematic maps. 5
- (b) What is levelling? Briefly explain the procedure of levelling with the help of dumpy level. $1 + 4 = 5$
- (c) Write a note on choice of map projection for polar regions. 5

- (d) What is time-series analysis? Briefly discuss its application in geographical study. $1 + 4 = 5$

- (e) Highlight the need of quantification in geography. 5

4. With necessary illustrations, discuss the importance of cartography in geography. 10

Or

Explain the procedure of contouring with the help of dumpy level. 10

5. What is zenithal map projection? Highlight its basic principles, properties and uses. $1 + 9 = 10$

Or

What do you mean by central tendency and dispersion? Discuss their utilities in geographical study with examples. $2 + 8 = 10$

6. What is probability sampling? Discuss four different types of probability sampling with respect to their advantages and disadvantages. $2 + 8 = 10$

Or

What is regression residual? Explain its utilities in geographical study. $2 + 8 = 10$
