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63/2 (SEM-1) GGY 104

2021

(held in 2022)

GEOGRAPHY

(Theory Paper)

Paper Code : GGY-104

**(Cartographic Methods And
Quantitative Techniques)**

Full Marks – 80

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Multiple choice questions (answer *all*) : $1 \times 6 = 6$

(a) Who prepared the first map of the world ?

(i) Anaximander (ii) Hecataeus

(iii) Eratosthenes (iv) Ptolemy

[Turn over

(b) Which of the following scale is useful for making measurements of decimal points ?

- (i) Statement scale (ii) Plane scale
- (iii) Diagonal scale (iv) Vernier scale

(c) Which projection is best suited to represent the distributional pattern for the state of Assam ?

- (i) Conical projection with two standard parallel
- (ii) Bonne's projection
- (iii) Mercator's projection
- (iv) Sinusoidal projection

(d) In normally distributed data series, the relationship between mean, median and mode is

- (i) Mean = Median = Mode
- (ii) Mean < Median < Mode
- (iii) Mean < Median > Mode
- (iv) Mean > Median > Mode

(e) Which one of the following is the measure of central tendency ?

- (i) Standard deviation
- (ii) Quartile deviation
- (iii) Mean deviation
- (iv) Mean

(f) What does the value of 'a' implies in a linear regression equation ?

- (i) Value of 'X' when 'Y' is Zero
- (ii) Estimated value of 'Y' when 'X' is Zero
- (iii) Summation of 'X' plus 'Y'
- (iv) Summation of 'Y' multiplied by 'X'

2. Answer in brief (answer *all*) : 2×5=10

- (a) State the distinction between traditional and digital cartography. 2
- (b) What do you mean by International Date line ? 2
- (c) Write how thematic map is different from other types of map. 2

(d) Write the advantages of plane table surveying. 2

(e) In a linear regression equation what does the value of 'b' signify? 2

3. Answer in brief (any six): 5×6=30

(a) Write the nature and scope of cartographic study. 5

(b) What do you mean by coordinate system and how it is found out? 5

(c) State the distinction between map, diagram, graph and sketch. 5

(d) What are the basic problems of map projection? How these problems can be solved? 5

(e) Mention the major global properties possess by the parallels and meridians. 5

(f) What are the important aspects that need to be considered in designing a map? 5

(g) Elaborate in short about the major techniques of topographic surveying and mapping? 5

(h) Demonstrate different probable pattern of correlation between two variables with diagram.

(i) Write a short note on median.

4. Answer in details (any two): 10×2=20

(a) Explain how cartographic study is relevant in present day geographic study. 10

(b) What do you mean by principles of map projection? Elaborate your answer with example. 10

(c) Mention various characteristics of 'mean'. 10

5. Answer in details (any one): 14×1=14

(a) Explain the principles of triangulation surveying in detail. 14

(b) Find out the R^2 value for the following data series: 14

X	0	2	3	4	6	7	8	10
Y	3	6	5	9	7	8	12	10