

3 (Sem-1/CBCS) GGY HC 2

2022

GEOGRAPHY

(Honours)

Paper : GGY-HC-1026

(Cartographic Techniques)

Full Marks : 60

Time : Three hours

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

1. Answer **any seven** questions from the following very objectively : $1 \times 7 = 7$
- (a) What is the shape of the earth ?
 - (b) Write the formula for finding out the length of tropic of cancer.
 - (c) If the statement scale of a map is 1 cm to 25 km, what will be its scale in R.F ?
 - (d) How many dimensions do the line features have ?
 - (e) What is the extension of longitude of the globe ?

Contd.

- (f) Give an example of qualitative thematic map.
- (g) Mention *one* property of cylindrical map projection.
- (h) Write the formula to find out the length of any meridian.
- (i) Give an example of choropleth map.
- (j) What is the difference in the length between the equatorial diameter and polar diameter ?
- (k) What is the average radius of the earth ?
- (l) In a cylindrical projection which parallel is normally a standard parallel ?

2. Answer **any four** from the following questions in very short : $2 \times 4 = 8$

- (a) Define great circle with an example.
- (b) What is a standard parallel ?
- (c) If a map with scale 1:250,000 is enlarged by five times, what would be the scale of the resultant map ?
- (d) What is meant by polar coordinate system ?
- (e) Find out the formula to calculate the area between *two* parallels of latitude on the earth.

- (f) What is a conventional projection ?
- (g) State the basic difference between gnomonic and stereographic map projections.
- (h) Define latitude.

3. Answer **any three** of the following questions in brief : $5 \times 3 = 15$

- (a) Distinguish between traditional cartography and modern cartography.
- (b) What is thematic map ? Mention its basic characteristics. $1 + 4 = 5$
- (c) What is a map ? Distinguish between planimetric map and hypsometric map with examples. $2 + 3 = 5$
- (d) Distinguish between latitude and longitude with the help of suitable diagrams.
- (e) Write a note on choice of map projection.
- (f) Compare the basic properties and uses between cylindrical and conical map projections.
- (g) Discuss the utilities of thematic maps with examples.
- (h) Throw light on representation of line data in thematic maps.

4. Answer **any three** of the following questions : 10×3=30

- (a) Define cartography and discuss its importance in geography. 2+8=10
- (b) Discuss the changing concept of shape of the earth and highlight the associated problems in the case of construction of map projection. 6+4=10
- (c) With necessary illustrations explain the procedure of representation of area data in maps.
- (d) What is zenithal map projection ? Present the detailed scheme of its classification. 2+8=10
- (e) What is quantitative thematic map ? Explain the procedure of preparing such a map. 2+8=10
- (f) Distinguish between choropleth map and isopleth map. Mention their relative utilities in spatial analysis. 5+5=10
- (g) Explain with necessary illustrations about conversion of point data into line and area data in thematic maps.
- (h) Discuss with justification about selection of suitable map projection for world mapping.
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