

2019

**GEOGRAPHY — HONOURS**

**Paper : CC-2**

**(Cartographic Techniques)**

**Full Marks : 50**

*The figures in the margin indicate full marks.*

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

**Group - A**

Answer **any five** questions (each within **50** words).

2×5

1. Why is graphical scale in a map necessary?
2. What is the utility of a comparative scale?
3. Convert the following rectangular co-ordinates to polar co-ordinates : (i) (3, 12) (ii) (4, -7).
4. What do you mean by a developable surface?
5. What is the significance of the standard parallel and central meridian in conical projections?
6. What are conventional signs?
7. How can the following be represented on a map?
  - (a) Relative relief
  - (b) Land use of CD Blocks of Nadia
  - (c) Rural and urban population of districts of West Bengal
  - (d) Population density of wards of Kolkata.

**Group - B**

Answer **any four** questions (each within **150** words).

5×4

8. The distance between two places A and B drawn on a scale 1 : 50,000 on a Survey of India topographic sheet is 14.5 centimetres. What should be the corresponding ground distance? What is the latitudinal and longitudinal interval of such maps?
9. Explain the difference between the Oblate Spheroidal and Geoidal shape of the earth. Use a diagram to explain the inequality of the Equatorial and Polar Axes of the Earth.
10. What is the length of any parallel of latitude on cylindrical projections? What is the resultant amount of magnification or compression? Use a diagram if necessary.

**Please Turn Over**

11. What should be the ideal difference between forward and backward magnetic bearings? Find the whole circle bearings for the following reduced bearings (i) N 35°16' W (ii) S 28°44' W (iii) S 50°18' E (iv) N 30°30' E.
12. Explain the concept of a Rhumbline.
13. Explain the advantages and disadvantages of isopleth maps.

**Group - C**

Answer *any two* questions (each within **500** words).

14. Classify projections with examples on the basis of their properties. 10
  15. Distinguish between angular and rectangular grid measurement systems with diagrams. 10
  16. Explain clearly the letter and number markings on the UTM projection. Which two letters are not used in this marking system? What is the latitudinal and longitudinal extent of a quadrilateral numbered 16P? 5+2+3
  17. What is a choropleth map? Explain the stages in the preparation of a choropleth map. 3+7
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