

Ex/SC/GEOG/UG/CORE/TH/02/2024(OLD)

BACHELOR OF SCIENCE EXAMINATION, 2024

(1st Year, 1st Semester)

GEOGRAPHY

PAPER : C102T (SC/GEOG/UG/CORE/TH/02)

( Basics of Cartography )

Time : 1½ Hours

Full Marks : 30

**GROUP—A**

Answer *any one* question.

**10×1=10**

1. A square area of 40 sq. km has been drawn on a map of 1 : 50,000. Then, the map was reduced to 1 : 40,000 scale. What will be the length of a side of the square on the new map? Classify scale. 5+5
2. Highlight the major characteristics and importance of UTM projection. A cube of 5 cm sides represents a tank of 1000 m<sup>3</sup> volume. Find the RF. 4+6

**GROUP—B**

Answer *any two* questions.

**5×2=10**

3. Write a short note on the different forms of geographical data representation.

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[ Turn Over ]

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4. Why is the shape of Earth known as ‘oblate spheroid’? Mention the significance of geoid concept.
5. Explain the relationship between radial and tangential scale factors on an equal area projection. What is a loxodrome?
6. Classify map projections based on the method of projection. What is the perpendicular distance of 60° N parallel from the equator on Earth?

**GROUP—C**

Answer *any two* questions.

**2×2=4**

7. Differentiate between Cartesian coordinates and Polar coordinates.
8. What is datum?
9. Calculate the length of 40° S parallel on Earth surface in km.
10. Define Vernier constant.

**Internal Assessment**

**06**

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