

3 SEM TDC GGRH (CBCS) C 5

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(Held in April–May, 2021)

GEOGRAPHY

(Core)

Paper : C-5

(**Cartography**)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Answer the following as directed : 1×5=5

(a) In a simple conical projection with one standard parallel, all the meridians and parallels intersect at right angles.

(Write True or False)

(b) The Mercator's projection belongs to conical/cylindrical/azimuthal group of projection.

(Choose the correct answer)

(c) A vertical control survey determines elevation with respect to ____.

(Fill in the blank)

(d) Telescope of the Dumpy's level can be moved along a vertical plane.

(Write True or False)

(e) Name the imaginary line joining the intersection of the crosshairs of the diaphragm to the optical centre of the object glass of the telescope of a theodolite.

2. Give short answers of the following questions (each **within 200 words**) : 3×4=12

(a) Discuss briefly about the choice of map projection.

(b) What is meant by 'horizontal control' in surveying?

(c) Discuss how a theodolite is more convenient than a Dumpy's level in measuring the height of a hillock.

(d) What is levelling? What are its different types?

(3)

3. What is map projection? What are the different types of map projections based on the position of viewpoint or source of light? Mention the important properties of polar zenithal gnomonic projection and also state its uses. Which projection is most suitable for astronomers for observing the position of heavenly bodies? $1+3+3+4+1=12$
4. What are the basic principles of surveying? Discuss its necessity in geographical studies. $6+6=12$
5. What do you mean by plane table surveying? Describe with a neat sketch the intersection method of plane table survey. Why is this method commonly used for surveying? $2+8+2=12$

Or

The following are the bearings of a closed traverse *ABCDE* :

<i>Line</i>	<i>Fore Bearing</i>	<i>Back Bearing</i>
<i>AB</i>	157° 30'	337°
<i>BC</i>	75° 30'	255° 30'
<i>CD</i>	2°	181° 30'
<i>DE</i>	263° 30'	84°
<i>EA</i>	227° 30'	48° 30'

Calculate the included angles and correct the error in the bearings where necessary. $6+6=12$
