Seat No.

Total No. of Pages : 2

OCT-NOV 2025 WINTER EXAMINATION

1154 B.Tech. CBCS

Sub. Name: Surveying-II

Sub. Code: 63345/79113/79401

Day and Date: Monday ,08-12-2025 **Total Marks: 70**

Time: 10:30 AM To 01:00 PM

Instructions: **1. Assume suitable data wherever necessary and mention it boldly**
2. Figures to the right indicate full marks
3. Use of Scientific calculator is allowed

Special Inst.: **Attempt any three questions from question number 1 to question number 4**
Attempt any three questions from question number 5 to question number 8

Q1) a) Explain principle of Tacheometry with neat sketch(06) **[12]**

b) Following observations were taken with Transit Theolite

Inst.station	Staff station	Target	Vertical Angle	Staff Reading	Remark
O	A	Lower	+ 4˚30´	0.950	R.L of instrument axis=255.500
		Upper	+ 6˚30′	3.250	

Calculate the horizontal distance between the instrument station and staff , also the RL of station A(06)

Q2) a) Explain criteria for base line selection (05) **[11]**

b) Explain criteria for selection of station (06)

Q3) a) What are various use's of total station in civil engineering (05) **[11]**

b) Explain detailed survey for Road Project (06)

Q4) Attempt any three from the following **[12]**

a) Explain procedure and application of subtense bar with neat sketch. (04)

b) Explain Principal of Triangulation. (04)

c) Explain Principle of EDM. (04)

d) Radial Contouring. (04)

Q5) a) Explain in brief the field procedure for setting out the curve by offsets from long chord method (06) **[12]**

b) Two tangents intersect at a chainage of 1250m. The angle of intersection is 150°. Let us calculate all data necessary for setting out a curve of 250m radius by the deflection angle method (Rankines method). Peg intervals may be taken as 20M.(06)

Q6) a) Explain Terrestrial Photogrammetry and Aerial Photogrammetry (05) **[11]**

b) A line AB measures 11.00 cm on a photograph taken with a camera having a

focal length of 21.5 cm. The same line measures 3.00cm on a map drawn to scale of 1/45000, calculate the flying height of the aircraft, if the average altitude is 350m.(06)

Q7) a) Explain applications of remote sensing in civil engineering (05) **[11]**
b) Explain basic components of GIS (06)

Q8) Write short notes on any three from the following **[12]**
a) Vertical Curves (04)
b) Compound curve (04)
c) Drift & Crab(04)
d) GPS & its applications (04)

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -
This Question Paper may be distributed for following Subjects as common code.
सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (101) Bachelor of Engineering (79401) Surveying-II Part 2 SEM 4
2] (1154) B.Tech. CBCS (79113) Surveying-II Part 2 SEM 4
3] (101) Bachelor of Engineering (63345) Surveying-II Part 2 SEM 4