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Total No. of Pages : 2

Seat No.	

S.Y. B.Tech. (Civil Engineering) (CBCS) (Semester - IV) Examination, December - 2023

PCC-CV402, SURVEYING - II

Sub. Code : 79113

10540

Day and Date : Thursday, 28-12-2023 **Total Marks : 70**

Time : 2.30 p.m. to 5.00 p.m.

Instructions :
1) **Attempt any three questions from each section.**
2) **Figures to the right indicate full marks.**
3) **Assume suitable data if necessary and state them clearly.**
4) **Use of non-programmable calculator is allowed.**

SECTION - I

Q1) a) What are methods of Tacheometry? Explain any one. **[6]**

b) A Tacheometer was set up at a Station C and the following readings were obtained on a Staff Vertically Held. **[6]**

Inst Station	Staff Station	Vertical Angle	Hair Readings			Remark
C	BM	–5°20'	1.50	1.800	2.450	RL of
C	D	+8°12'	0.750	1.500	2.250	BM = 750.50m

Calculate the Horizontal Distance CD and RL of D, When the Constants of Instrument are 100 and 0.15.

Q2) a) Explain with neat sketch procedure of reduction to center. **[6]**

b) Explain classification of signals. **[5]**

Q3) a) What are various use's of total station in civil engineering. **[5]**

b) What is reconnaissance survey? **[6]**

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Q4) Write short notes on any Three. **[12]**

a) Tangential Method.

b) Sbtense Bar.

c) Criteria's for selection of station.

d) Principle of EDM.

e) Use of Triangulation.

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SECTION - II

Q5) a) Explain in brief necessity of overlapping. **[4]**

b) Two tangents intersect at a chainage of 1000m. The deflection angle is 30° Calculate all the data necessary for setting out a curve of radius 250 m by Rankine's method, take peg interval as 20m. **[8]**

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Q6) a) Explain scale of vertical photographs. **[5]**

b) Points P and Q have elevations of 600 m and 300 m respectively. The Photographic coordinates of points P and Q were measured as P (35, 25) and Q (20, 50) in mm. The photograph was taken with a camera having a focal length of 210 mm and from a flying altitude of 2500m. Find the length of the line PQ. **[6]**

Q7) a) Explain remote sensing in detail. **[5]**

b) Explain GPS in detail. **[6]**

Q8) Write short notes on any Three. **[12]**

a) Transition curve

b) Compound curve

c) Drift & Crab

d) GIS

e) Vertical Curves

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