

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

Paper ID [A0601]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 3rd)

SURVEY - I (CE - 201)

Time : 03 Hours

Maximum Marks :60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) Differentiate between Metric and Surveyor's chain.
- b) Differentiate between check line and a tie line in chain surveying.
- c) Enumerate the factors on which limiting length of offsets depends.
- d) Define "Local attraction" in compass surveying.
- e) If the whole circle bearing of the line is $293^{\circ} 15'$, then what will the quadrantal bearing of the line?
- f) If the fore bearing of a line AB is $S 35^{\circ} E$ and that of a line BC $15^{\circ} 18'$, then what will be the included angles between the lines?
- g) Enumerate the different methods of plane table surveying.
- h) Define Sensitivity of a level tube.
- i) Enumerate the various uses of a contour map.
- j) Write down the uses of Tangent Clinometer and Planimeter.

Section - B

(4 × 5 = 20)

- Q2) How do you continue chaining past a pond? Explain.
- Q3) Define following terms.
Elimination of parallax, Level surface, Vertical line, Fore sight, Bench mark.
- Q4) What is method of resection in the plane table surveying? Describe briefly with the help of a neat figure.
- Q5) Differentiate between Prismatic and Surveyor's or compass.
- Q6) What are various methods of contouring? Describe merits and demerits of each?

Section - C

(2 × 10 = 20)

- Q7) Give the statement of Two point problem in plane table surveying. How it can be solved.
- Q8) Following are the bearings taken on a closed compass traverse:

Line	Fore Bearing	Back Bearing
AB	80° 10'	259° 00'
BC	120° 20'	310° 50'
CD	170° 50'	350° 50'
DE	230° 10'	49° 30'
EA	310° 20'	130° 15'

Compute the interior angles and correct them for observational errors. Assuming the observed bearing of the line CD to be correct, adjust the bearing of remaining lines.

- Q9) Write down short notes on the followings:
Ghat Tracer, Hand level.

