Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Voc. (Building Construction and Technology). (Sem.–4)

SURVEYING - II

Subject Code : BVBCT-402-20

M.Code : 91638

Date of Examination : 22-12-22

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) List various uses of contour maps.

b) What is a contour gradient?

c) Define the term *'transiting the telescope'*.

d) When is telescope said to be normal?

e) What is the advantage of tachometer over stadia theodolite?

f) What are the functions of a transition curve?

g) What is the function of Planimeter?

h) Define arc.

i) Define declination.

j) What is point of intersection in a curve?

SECTION-B

2. Briefly discuss various methods of interpolating the contours.

3. An instrument was set up at P and the angle of depression to a vane 2m above the foot of the staff held at Q was 5°36'. The horizontal distance between P and Q was known to be 3000m. Determine the RL of the staff station Q; given that staff reading on a bench mark of elevation 436.050 was 2.865m.

4. Determine the gradient from a point A to point B from the following observations made with a tacheometer fitted with an anallactic lens. The constant of the instrument was 100 and the staff was held vertically :

Inst. station	Staff point	Bearing	Vertical angle	Staff reading
P	A	134°	+10°32'	1.360,1.915,2.470
	B	224°	+5°6'	1.065,1.885,2.705

5. Discuss how simple circular curve can be set out by perpendicular offsets from the tangent.

6. Write a brief note on total station.

SECTION-C

7. Discuss various methods of locating contours.

8. Following observations were taken from two traverse stations by means of a tachometer fitted with an anallactic lens. The constant of the instruments is 100.

Inst. Station	Staff station	Height of Inst.	Bearing	Vertical angle	Staff reading
A	C	1.38	226°30'	+10°12'	0.765,1.595,2.425
B	D	1.42	84°45'	-12°20'	0.820,1.840,2.860

Co-ordinates of station A 212.3N 186.8 W

Co-ordinates of station B 102.8N 96.4 W

Compute the length and gradient of the line CD, if B is 6.50m higher than A.

9. Discuss various types of EDM instruments.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.