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**4th Sem / Branch : CIVIL ENGINEERING/ Const.mgmt./Brick Tech/Highway Engg.**

**Subject:- Surveying-II**

Time : 3Hrs. M.M. : 100

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The horizontal distance between two consecutive contour line is (CO-01)

a) Contour interval b) Contour distance
c) Contour length d) Horizontal equivalent

Q.2 When contour lines are uniformly spaced it indicates (CO-01)

a) Steep ground b) Uniform slope
c) Flat ground d) None of the above

Q.3 A series of closed lines on map represents a depression if (CO-01)

a) Lower values are inside
b) Lower values are outside
c) Higher values are inside
d) None of these

Q.4 Correction values for balancing the traverse determined by_____. (CO-02)

a) Parallax method b) Transit method
c) Swing method d) None of the above

Q.5 Size of theodolite is determined by_____ (CO-02)

a) Dia.of horizontal circle
b) Height of stand



c) Length of telescope
d) None of the above

Q.6 if b is the reduced bearing, I is the length of line, then latitude is equal to _____ (CO-03)

a) L sinb b) L cosb
c) L secb d) L cosecb

Q.7 The usual value of multiplying constant in tacheometry is (CO-03)

a) 0 b) 1
c) 10 d) 100

Q.8 A vertical curve having convexity upward is known as (CO-04)

a) Valley curve b) Summit curve
c) Tangential curve d) None of the above

Q.9 When two tangent meet at a point the point is known as (CO-4)

a) Apex b) Summit
c) Vertex d) None of the above

Q.10 An instrument which is used to measure the area of the plan of any shape (CO-05)

a) Distomat b) Planimeter
c) Theodolite d) None of the above

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define horizontal equivalent . (CO-01)

Q.12 Define direct method of conducting. (CO-01)

Q.13 When several contours coincides it shows a _____ (CO-01)

Q.14 Define face right (CO-02)

Q.15 Define orientation (CO-02)

Q.16 Define G.P.S (CO-05)

Q.17 The value of ____constant should be zero (CO-03)

Q.18 Define deviation curve (CO-04)

Q.19 Define Transaction curve (CO-04)

Q.20 Define total station (CO-05)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain indirect method of contouring (CO-01)

Q.22 Describe the characteristics of contour (CO-01)

Q.23 Explain how to compute earth work from contour map (CO-01)

Q.24 List various sources of errors in theodolite (CO-02)

Q.25 Explain repetition method of measuring horizontal angle (CO-02)

Q.26 Explain temporary adjustment of theodolite (CO-02)

Q.27 In a transverse the latitudes and departures of the sides were -2.13 and +2.78 respectively. calculate the length and bearing of closing line (CO-02)

Q.28 Explain the principle of tacheometry ? (CO-03)

Q.29 Two tangent intersect at an angle of 150°. if they are to be connected by a 15° curve. calculate : length of curve ,apex distance and tangent line (CO-04)

Q.30 What is reverse curve ? write its significance (CO-04)

Q.31 Distinguish between degree of curve and radius of curve (CO-04)



Q.32 A simple circular curve has a radius of 700 m. the two tangents intersect at an angle of 120°. the chainage of point of intersection in 900 m. find tangent length, length of curve and degree of curve (CO-04)

Q.33 Name various types of curve and explain any one of them in detail (CO-04)

Q.34 Write a short note on total station (CO-05)

Q.35 Define remote sensing. (CO-05)

## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the process of determining the height of tower when its base is inaccessible (CO-02)

Q.37 From the following data. find out the constant of tacheometry. Also find the distance when the readings of the stadia wires were 1.20 m and 3.70m . The line of sight is horizontal in all cases (CO-03)

| H.D | Staff Readings | |
|---|---|---|
| | Lower stadia | Upper stadia |
| 200 m | 1.50 m | 3.46 m |
| 400 m | 0.40 m | 4.33 m |

Q.38 List various types of circular curve and explain any one of them in detail with neat sketch (CO-04)