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Roll No.....

4th Sem,

Branch : Civil, Constr. Mgmt., Highway Engg.

Subject : Surveying-II

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 Closed contours of decreasing values towards their centre, represent a (CO-1)

a) Hill b) Depression
c) Saddle d) Vertical cliff

Q.2 Which method of contouring is most suitable for hilly terrains? (CO-1)

a) Cross-section method
b) Direct method
c) Square method
d) Techometric method

Q.3 A theodolite can be used for (CO-2)

a) Horizontal angle measurement
b) Ranging a line
c) Calculating vertical height
d) All of the above

Q.4 The process of turning the telescope about the vertical axis in Horizontal plane is known as (CO-2)

a) Transiting b) Reversing
c) Swinging d) Plunging

Q.5 The process of setting the theodolite exactly over the station is known as (CO-2)

a) Centering b) Transiting
c) Swinging d) Line of collimation

Q.6 If the intercept of vertical staff is observed as 1.5 m, the horizontal distance between the tacheometer and staff station is _____. (CO-3)

a) 75 m b) 150 m
c) 115 m d) 300 m

Q.7 What is multiplying constant in tracheometric? (CO-3)

a) f/i b) (f+d)
c) f+i d) (f/d)

Q.8 If R is the radius of the circle, so for a 30m arc, the degree of a circular Curve is (CO-4)

a) 1718.9/R b) 2019/R
c) 1146/R d) 1765/R

Q.9 Which of the following is not a type of horizontal curve? (CO-5)

a) Simple circular curve
b) Reverse curve
c) Summit curve
d) Compound curve

Q.10 Total station can be used for (CO-5)

a) Angular measurements
b) Linear measurements
c) Elevation measurements
d) All of the above

SECTION-B

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

Q.11 Steep ground is represented where contour lines run _____ together. (CO-1)

Q.12 The operation of bringing the face of vertical circle from left to right is called_____. (CO-2)

Q.13 _____ is removed by turning focusing screw. (CO-2)

Q.14 The process of rotating the telescope over its horizontal axis through 180 degree in a vertical plane is called_____. (CO-2)

Q.15 The _____ constant can be made zero. (CO-3)

Q.16 In case of fixed hair method, the staff intercept _____ with its distance from instrument. (CO-3)

Q.17 A single curve of a circle connecting two straights is called _____ Curve. (CO-4)

Q.18 The angle between the back tangent and forward tangent of a curve is known as _____. (CO-4)

Q.19 Total length of a simple circular curve is ____. (CO-4)

Q.20 Planimeter is an instrument which is used for _____. (CO-5)

SECTION-C

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

Q.21 What is contour? What is the purpose of contouring? (CO-1)

Q.22 Define contour interval and horizontal equivalent. (CO-1)

Q.23 Name the various parts of theodolite. (CO-2)

Q.24 Describe the process of measuring a vertical angle. (CO-2)

Q.25 What are the sources of errors in a theodolite work. (CO-2)

Q.26 Explain the principal of tacheometry. (CO-3)

Q.27 Explain the various instrument used in tacheometry. (CO-3)

Q.28 What is a compound curve? (CO-4)

Q.29 Explain the procedure with sketch for setting out curve by radial offset from tangent length. (CO-4)

Q.30 What is super-elevation? Derive the expression for super-elevation. (CO-4)

Q.31 What are the characteristics of transition curve? (CO-4)

Q.32 Explain the procedure with sketch for setting out curve by perpendicular offsets. (CO-4)

Q.33 Define E.D.M.? Name the various types of E.D.M. Instruments. (CO-5)

Q.34 For what purpose planimeter is used? (CO-5)

Q.35 Write the process of measuring deflection angle. (CO-4)

SECTION-D

Note : Long Answer type question. Attempt any two questions. (2x10=20)

Q.36 Explain direct method of contouring. (CO-1)

Q.37 What a temporary adjustment of a theodolite? Describe the process. (CO-2)

Q.38 Two straights meet having deflection angle 40 degree. Determine the elements of simple circular curve if it is to be connected by 6 degree curve. Chain used was 30 m in length. (CO-4)

Note : Course Outcome (CO) mentioned in the question paper is for official purpose only.