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4th Sem / Civil, Constr. Mgmt, Highway Engg.
Subject:- Surveying - II

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 An imaginary line joining the points of equal elevation is (CO1)
a) Horizontal line c) Level line
b) Base line d) Contour line

Q.2 Steep ground is represented by (CO1)
a) Widely separated contour line
b) Closely packed contour line
c) Parallel running contour line
d) None of the above

Q.3 Vertical distance between any two consecutive contours is known as (CO1)
a) Contour interval
b) Contour gradient
c) Horizontal equivalent
d) None of the above

Q.4 An imaginary line joining the optical centre of object glass and the centre of eye piece is (CO2)
a) Line of collimation c) Axis of telescope
b) Horizontal axis d) Axis of level tube

Q.5 Revolving the telescope in the horizontal plane about the vertical axis is (CO2)

a) Face left c) Swinging
b) Face right d) Transit

Q.6 In Tachometer, the value of additive constant should be (CO3)
a) One c) Two
b) Zero d) Infinite

Q.7 Which one of the following is not a method of tachometry (CO3)
a) The stadia method
b) The tangential method
c) The parallax method
d) None of the above

Q.8 A simple circular curve is designated by (CO4)
a) Radius c) Width
b) Length d) None of the above

Q.9 The radius of 1^{o} curve is approximately equal to (CO4)
a) 1517 m c) 1719 m
b) 1615 m d) 1916 m

Q.10 What is the full form of G.I.S? (CO5)
a) Geological Information system
b) Geographical innovative system
c) Geological innovative system
d) Geographical information system

SECTION-B

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

Q.11 Define contour interval. (CO1)

Q.12 Contour lines cross ridge lines at_____ angle. (CO1)

Q.13 Contour lines cross each other in case of_____. (CO1)

Q.14 Define Centering. (CO2)

Q.15 _____is removed by turning focusing screw of theodolite. (CO2)

Q.16 Define latitude and departure. (CO3)

Q.17 A theodolite without stadia hair can be used in _____. (CO3)

Q.18 Define compound curve. (CO4)

Q.19 Define Transition curve. (CO4)

Q.20 Define planimeter. (CO5)

SECTION-C

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

Q.21 Describe the characteristics of contour. (CO1)

Q.22 Describe the process of measuring a vertical angle by theodolite. (CO2)

Q.23 Explain repetition method of measuring horizontal angle. (CO2)

Q.24 Explain temporary adjustment of theodolite. (CO2)

Q.25 Explain various sources of errors in theodolite. (CO2)

Q.26 Differentiate between theodolite and tacheometer. (CO3)

Q.27 Discuss the methods of tacheometry. (CO3)

Q.28 What are the requirements of a tacheometer? (CO3)

Q.29 Write the procedure for setting out curves by offsets from tangent. (CO4)

Q.30 A simple circular curve has a radius of 700 m. the two tangents intersects at an angle of 120°. The chainage of point of intersection in 900 m. find tangent length, length of curve and degree of curve. (CO4)

Q.31 Explain long chord and tangent length. (CO4)

Q.32 Two tangent intersect at an angle of 120°. If they are to be connected by a 12° curve. Calculate: length of curve, apex distance and tangent length. (CO4)

Q.33 What is reverse curve? Write its significances. (CO4)

Q.34 Define remote sensing. (CO5)

Q.35 What are the basic functions of GPS? (CO5)

SECTION-D

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

Q.36 Discuss direct method of contouring by radial method. (CO1)

Q.37 The following observations were taken from station P and Q. Calculate the length and bearing of line AB and angles ÐA and ÐB. (CO2)

LINE	LENGTH (m)	Bearing
PA	125	S 60° 30' W
PQ	200	N 30° 30' E
QB	150.5	N 50° 15'W

Q.38 List various types of circular curve and explain any one of them in detail with neat sketch. (CO4)