

Q.P. Code: 16CE105

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Reg. No:

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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech II Year I Semester Regular & Supplementary Examinations Nov/Dec 2018
SURVEYING
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

- 1 a Explain the prismatic compass with neat sketch. 6M
b What are the different tape correction and how they are applied? 6M

OR

- 2 a Explain two-point problem with sketches. 5M
b With a surveyor compass the angles observed in traversing the lines AB, BC, CD, DE and EF are as follows. Compute the included angles and indicate them in a neat sketch.

Line	FB	BB
AB	N 55° 30' E	S 55° 30' W
BC	S 63° 30' E	N 63° 30' W
CD	N 70° 00' E	S 70° 00' W
DE	S 45° 30' E	N 45° 30' W
EF	N 72° 15' E	S 72° 15' W

7M

UNIT-II

- 3 a What are the indirect methods of locating a contour? Write about any two methods. 7M
b Define contour and contour interval. State the various characteristics of contour lines. 5M

OR

- 4 a Write down various types methods of leveling. 2M
b The following staff readings were observed successively with level, the instrument has been moved forward after the second, fourth and eighth readings: 0.875, 1.235, 2.310, 1.385, 2.930, 3.125, 4.125, 0.120, 1.875, 2.030 and 3.765. The first reading was taken with the staff held upon a benchmark of elevation 132.135m. Apply the usual checks. Find out difference in level between the first and the last points. 10M

UNIT-III

- 5 a For the following traverse, compute the length CD, so that A, D and E may be in one straight line.

Line	Length (m)	Bearing
AB	110°	83°12'
BC	165°	30°42'
CD	?	346°06'
DE	212°	16°18'

7M

- b Write about parts of the Transit Theodolite. Explain in detail. 5M

OR

- 6 a What are the different errors in theodolite work? How are they eliminated? 6M

- b** Determine the R.L of the top of a temple from the following data. Station A and B are in line with the top of the temple.

Inst Station	Reading on BM(m)	Vertical Angle	R.L of BM
A	1.085	10°48'	R.L of BM = 150.000m AB=50 m
B	1.265	7°12'	

6M

UNIT-IV

- 7 a** Two straight lines AC and CB, to be connected by a 3° curve, intersect at a chainage of 2760 m. The WCBs of AC and CB are 45°30' and 75°30' respectively. Calculate all necessary data for setting out the curve by the method of offsets from the long chord. 7M
- b** Explain various elements of a simple curve with a neat sketch. 5M

OR

- 8 a** Briefly explain the field procedure of setting out of curve by two theodolite methods 7M
- b** Write short notes on types of circular curves. 5M

UNIT-V

- 9 a** Define Phase of a wave. 2M
- b** Explain in detail about the Wild T-1000 Electronic Theodolite. 10M

OR

- 10 a** Explain in detail about the infrared type of EDM instrument. 7M
- b** Write short notes on total stations. 5M

*** END ***