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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**

**B.TECH II Year II Semester Regular & Supplementary Examinations May 2019
SURVEYING**

(Agricultural Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 X 12 = 60 Marks)

UNIT-I

- 1 a Write short notes on types of errors. 6M
- b Explain two-point problem with neat sketch. 6M

OR

- 2 Explain in detail the classifications of surveying. 12M

UNIT-II

- 3 a Write short notes on methods of leveling. 6M
- b Define contour. State the various characteristics of contour lines. 6M

OR

- 4 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 130.00m. Enter the readings in level book-form and reduce the levels. Apply the usual checks. Find also the difference in level between the first and the last points. 12M

UNIT-III

- 5 a What are the different errors in theodolite work? How are they eliminated? 6M
- b What is tacheometry? What are different systems of tacheometric measurements? 6M

OR

- 6 The vertical angles to vanes fixed at 0.5m and 3.5m above the foot of the staff held vertically at a point were - 00° 30' and + 10 °12' respectively. Find the horizontal distance and the reduced level of the point, if the level of the instrument axis is 125.380meters above datum. 12M

UNIT-IV

- 7 Explain various elements of a simple curve with a neat sketch. 12M

OR

- 8 A compound curve is made up of two arcs of radii 380 m and 520 m. The deflection angle of the combined curve is 105° and that of the first arc of radius 380 m is 58°. The chain age of the first tangent point is 848.55 m. find the chainage of the point of intersection, common tangent Point, and forward tangent point. 12M

UNIT-V

- 9 Explain with sketch the principle of EDM instrument. 12M

OR

- 10 Explain in detail about the types of EDM instrument. 12M

END