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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech II Year I Semester Supplementary Examinations August-2022****SURVEYING**

(Civil Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I1 Explain in detail the classifications of surveying. L1 12M**OR**2 Define L1 12M

- i. Magnetic meridian and true meridian.
- ii. Whole circle bearing and reduced bearing.
- iii. Dip and declination.
- iv. Closed traverse and open traverse.
- v. Fore bearing and back bearing.

UNIT-II3 Describe in detail how you would proceed in the field for L1 12M
(i) profile leveling
(ii) reciprocal leveling.**OR**4 a In leveling between two points A and B on opposite sides of a river, the level was L1 6M
set up near A and the staff readings on A and B were 2.642 and 3.228m respectively. The level was then moved and set up near B, the respective staff readings on A and B were 1.086 and 1.664. Find the true difference level of A and Bb Write short notes on difficulty in leveling. L1 6M**UNIT-III**5 a Give a list of the permanent adjustments of a transit theodolite. L1 6Mb What are the different errors in theodolite work? How are they eliminated? L1 6M**OR**6 The vertical angles to vanes fixed at 0.5m and 3.5m above the foot of the staff held L2 12M
vertically at a point were $-00^{\circ} 30'$ and $+10^{\circ} 12'$ respectively. Find the horizontal distance and the reduced level of the point, if the level of the instrument axis is 125.380meters above datum.**UNIT-IV**7 Describe with sketch the method of setting a simple circular curve by rankine's L2 12M
deflection angle method.**OR**8 Two straight lines AC and CB, to be connected by a 30 curve, intersect at a L2 12M
chainage of 2760 m. The WCBs of AC and CB are $450^{\circ} 30'$ and $750^{\circ} 30'$ respectively. Calculate all necessary data for setting out the curve by the method of offsets from the long chord.

UNIT-V

9 Briefly explain the types of EDM instrument.

L2 12M

OR

10 Define the following terms.

L1 12M

i. Cycle.

ii. Frequency.

iii. Wave length

iv. Period.

v. Phase of a wave

***** END *****