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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech II Year I Semester Supplementary Examinations August-2021

SURVEYING & GEOMATICS

(Common to CE & AGE)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Briefly explain the principles of surveying? 6M
b Write short notes on types of errors. 6M

OR

- 2 a Briefly explain the various accessories in chain surveying. 6M
b What are the duties of a surveyor? 6M

UNIT-II

- 3 a Write short notes on errors in leveling 8M
b Discuss the effects of curvature and refraction in leveling. 4M

OR

- 4 a Define contour. State the various characteristics of contour lines. 7M
b Mention the uses of contour in civil engineering works? 5M

UNIT-III

- 5 a Write about parts of the Transit Theodolite. Explain in detail. 6M
b What are the different errors in Theodolite work? How are they eliminated? 6M

OR

- 6 a What is an analytical lens? Establish the basic equation for an analytic lens. 5M
b What is tacheometry? What are different systems of tacheometric measurements? 7M

UNIT-IV

- 7 a Define and draw a typical compound curve. Under what circumstance compound curves are provided. 6M
b Derive the expression for the elements of a compound curve. 6M

OR

- 8 a Write short notes on reverse curves. 6M
b Explain the procedure of setting out of curve by two theodolite methods. 6M

UNIT-V

- 9 a Explain about AM and FM modulation. 6M
b What is modulation? Explain the necessity of modulation. 6M

OR

- 10 a Explain in detail about the infrared type of EDM instrument. 6M
b Write short notes on total stations. 6M

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