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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CE) (Sem.-4)

SURVEY-II

Subject Code : CE-202

Paper ID : [A0606]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a. List different types of Theodolites.
- b. Write the expression for Transit Rule and Bowditch Rule.
- c. Distinguish between a True Bearing and Magnetic Bearing.
- d. Differentiate between temporary and permanent adjustments.
- e. Write the working principle of GPS.
- f. Why Base line is used in Surveying?
- g. Explain the principle of Trigonometric Levelling.
- h. What is tangential tacheometry.
- i. What is the error due to incorrect Centring of Instrument?
- j. Explain axis signal correction.

SECTION-B

2. What are latitudes and departures? How will you balance a closed traverse? What are the checks for closed and unclosed traverses?
3. Explain the method of setting out a curve by radial offsets from tangents. Derive the necessary formula.
4. Describe briefly different types of remote sensing techniques.
5. What is meant by reduction to centre and derive an expression for it?
6. What are the requirements for fixing the stations in the survey area?

SECTION-C

7. The following consecutive readings were taken with a level and 3 meter levelling staff on continuously sloping ground at a common interval of 20 meters :
0.602, 1.234, 1.860, 2.574, 0.238, 0.914, 1.936, 2.872, 0.568, 1.824 and 2.722. R.L. of the first point was 192.122. Rule out a page of a level field book and enter the above readings. Calculate the R.L.'s of the points and also the gradient of the line joining the first and the last points.
8. Explain the different corrections to base line measurements.
9. a) Define GIS. Describe the key components of GIS.
b) What is reverse curve ? Explain the situations in which it is used.