Roll No. [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (Sem.–3rd)

SURVEY-I

Subject Code : CE-201

Paper ID : [A0601]

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. What do you understand by Principle of chain surveying?

   b. List the various types of tapes.

   c. Distinguish between a True Bearing and Magnetic Bearing.

   d. Differentiate between temporary and permanent adjustments.

   e. Write the principle of Plane Tabling.

   f. List the various methods of contouring.

   g. Explain the principle of Contouring.

   h. What is principle of Box Sextant?

   i. What is error due to incorrect Centring of Instrument?

   j. List the various types of Levels.

SECTION-B

2. Which type of area is best suited for chain survey? Give reasons.
3. Explain the different corrections to base line measurements.
4. Differentiate between Prismatic and Surveyor's compass.
5. What is meant by reduction to centre and derive an expression for it?
6. Explain the methods employed in measuring distances across the obstacles.

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 Two Point Problem in Plane Tabling.
9. Discuss the working of Abney Level and its utility in surveying.