

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech (Civil) (Sem.-3)

SURVEY-I

Subject Code : CE-201

Paper ID : [A0601]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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 have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**
4. **Assume missing data suitably.**

SECTION-A

1. Answer briefly :

- a) What do you mean by levelling in survey? State its objective.
- b) What do you mean by survey lines? Explain check lines and tie lines.
- c) An offset is laid out 2° from its true direction on the field. If the scale plotting is 10m to 1 cm. Find the maximum length of the offset so that the displacement of the point on the paper may not exceed 0.25 mm.
- d) List four equipments used in plane table surveying.
- e) What are the temporary adjustments in levelling?
- f) What do you mean by contouring and where it is used?
- g) Write a short note on differential levelling.
- h) Find the combined correction for curvature and refraction for distance of
 - (i) 3400 m.
 - (ii) 1.29 km
- i) Enumerate the various obstacles in chaining.
- j) What is the use abney level?

SECTION-B

- Q2. What do you mean by back bearing? What are the advantages of observing it in a traverse?
- Q3. Briefly differentiates between Permanent and Temporary adjustments of a level?
- Q4. What are the characteristics of contours and the methods of locating contours?
- Q5. Explain the different obstacles encountered in chain surveying.
- Q6. The following bearings were observed with a compass. Calculate the interior angles.-

Line	FB
AB	60 degree 30 minutes
BC	122 degree 0 minute
CD	46 degree 0 minute
DE	205 degree 30 minutes
EA	300 degree 0 minute

SECTION-C

- Q7. What do you mean by plane tabling? Briefly explain the methods of plane tabling.
- Q8. Differentiate between surveyors compass and prismatic compass. What types of adjustments are made in these compasses?
- Q9. The following staff readings were observed successfully with a level, the instrument having been moved after third, sixth, and eighth readings :

2.228; 1.606; 0.988; 2.090; 2.864; 1.262; 0.602; 1.982; 1.044; 2.684 meters.

Enter the above readings in a page of a level book and calculate the RL of points. If the first reading was taken with a staff held on a Bench mark of 432.384 m.