Roll No. | | | | | | | | | | | | |

Total No. of Pages: 02
Total No. of Questions: 09

B.Tech.(CE) (Sem.-3rd)

SURVEYING

Subject Code: BTCE-304
Paper ID: [A1116]

Time: 3 Hrs. **Max. Marks:60**

INSTRUCTIONS TO CANDIDATES:

1. ***Section –A is Compulsory.***
2. ***Attempt any four questions from Section-B.***
3. ***Attempt any two questions from Section-C.***

SECTION - A

(10x2=20)

Q.1. Write briefly:

a) Enumerate the various methods of chaining.

b) What are the different types of chains?

c) What are the temporary adjustment of a level?

d) What are the different methods of contouring?

e) What are the different methods of leveling?

f) What is reconnaissance? List various methods of reconnaissance.

g) Distinguish between local attraction and declination.

h) What are the sources of error in leveling?

i) Distinguish between a true bearing and magnetic bearing.

j) Explain the elements of a curve.

SECTION - B

(4x5=20)

Q2. A 30 m chain was found to be 0.20 m too long after chaining 1500m, it was found to be 0.15 m too long after chaining 2500 m. If the chain was correct before the commencement of work, find the true distance.

Q3. Describe the various methods of plane tabling. Under what conditions each is preferred.

Q4. What do you understand by balancing the traverse. Describe any three methods of adjusting the traverse.

Q5. Explain the three-point problem along with a suitable example.

Q6. Explain the method of determination of tacheometric constants of a techeometer.

SECTION – C

(2x10=20)

Q7. A staff was held vertically at horizontal distance of 45m and 120 m from the centre of a theodolite fitted with stadia hairs and the staff intercepts with the telescope horizontal were 0.447 and 1.93 resp. The instruments was then set over a station P of RL 300.25 and the height of instrument was 1.45 m. The hair readings on the staff held vertically at a station were 1.20,1.93 and 2.66 m while the vertical angle was $9^0 30$. Find the distance PQ and RL of Q.

Q8. Write short note on

(i) Obstacle in chaining

(ii) Bowditch's Rule

Q9. Define the degree of a curve and derive the expression for it.

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