

Roll No.

Total Pages : 02

BT-3/D-19

33100

SURVEYING-I

CE-207N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Assume any missing data. All questions carry equal marks.

Unit I

1. Differentiate between whole circle bearing and quadrantal bearing system, convert the following whole circle bearing into quadrantal bearing and quadrantal bearing into whole circle bearing. 15

(2) 20° (2) 150° (2) 210° (2) $N25^\circ30'W$ (2) $N30^\circ30'W$

2. Write the type of correction in chain or tape. 15

Unit II

3. (a) Write the classification of direct levelling. 7
 (b) The following reading were taken on a continuous sloping ground with 4 meter staff 0.780, 1.535, 1.955, 2.985, 3.480, 1.155, 2.365, 3.640, 0.935,

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1.630, 2.545 the R.L of first A was 100 determine R.L of all the other points by both the method and also draw the profile diagram. 8

4. What do you understand by contour and also write down the characteristics of contours. 15

Unit III

5. Write down all the method used for the measurement of angles in theodolite traverse. 15
6. Stadia reading were taken with a theodolite on a vertical staff with the telescope inclined at an depression of $3^\circ30'$. The staff reading were 2.990 and 1.120. The R.L. of the staff is 100 m and H.I is 1.40 m. What is the R.L. of the ground at the instrument ? Take the constant 100 and 0. 15

Unit IV

7. Explain the various methods of setting out the simple curves with neat diagram. 15
8. (a) Discuss the transition curves and what are the requirements of transition curves. 7
 (b) Calculate the ordinates at 10 m intervals for a circular curve. The long chord is 60 m and the radius is 150 m. 8

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