15

SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS, FEROZEPUR

ROLL No: | | | | | | | | | | | | | **Total number of pages:[2]**
Total number of questions:06

B.Tech. || CE || 3rd Sem.

Surveying

Subject Code: BTCE-304 / BTCE-303A

Paper ID:

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

Important Instructions:

- **All questions are compulsory**
- **Assume any missing data**

PART A (2×10)

Q. 1. Short-Answer Questions: All COs

(a) What are the basic principles of surveying?
(b) What are the instruments which are used for taking the offsets?
(c) Why zero is marked at the south in the prismatic Compass?
(d) What do you understand by the strength of Fix?
(e) What do you mean by the Contour lines?
(f) Explain the sensitivity of the Bubble tube.
(g) How would you differentiate between the True bearing and the Magnetic bearing?
(h) What is Latitude and Departure ?
(i) What are the methods of the Plane Tabling?
(j)What do you mean by Well Conditioned Triangle?

PART B (8×5)

Q. 2. Calculate the internal angles. The following bearings of a closed traverse ABCDE observed with the compass are:- CO1

Line	F.B.
AB	$62^0\,30'$
BC	$122^0\,30'$
CD	$46^0\,00'$
DE	$207^0\,30'$
EA	$305^0\,00'$

OR

Explain the various obstacles in chaining in detail. CO1

Q. 3. Following reading were successively taken with an instrument in levelling work: CO2

0.35, 0.53, 0.65, 1.85, 1.92, 2.36, 1.76, 0.37, 0.66, 1.25 and 0.96 m.

The position of the instrument was changed after 3rd, 7th and 9th readings. Draw out the form of level book and enter the above readings properly. If R.L of 1st point is 92.53 m. Calculate R.L of all points and apply usual checks.

OR

(a) What are the different methods of Contouring? Explain any one in detail. CO2

(b) Explain the various characteristics of Contours.

Q. 4. What is Two Point Problem? Explain Two Point problem related to Plane Table surveying in detail. CO3

OR

What are the sources of errors in Plane Table surveying? Explain in Detail CO3

Q. 5. Explain the repetition method to measure horizontal angle and how readings are recorded. CO4

OR

How Tacheometric leveling is done with both angle of depression and elevation? CO4

Q. 6. What are the various problems or obstacles faced in curve setting? Explain any one in detail. CO5

OR

Explain the method of layout of curve by using two theodolite method. CO5