

Roll No .

**CE-112****B.E. (All Branches) I Year II Semester**

Examination, June 2016

**Choice Based Credit System (CBCS)****Introduction to Surveying***Time : Three Hours**Maximum Marks : 60*

*Note:* i) Attempt any five questions. All questions carry equal marks.

ii) Any missing data assumed suitably and stated clearly.

1. a) What is the meaning of Surveying? Enumerate its type. What are the principles of surveying?
- b) What is GPS & GIS? Describe its applications. Also describe Electronic Distance Measurement in details.
2. a) Enumerate various accessories of chain survey. Describe types of chains in details.
- b) The total distance measured by 20 meter chain is 3000 m. After measuring 1000 m distance the chain was tested in laboratory and found to be 5 cm too short. At the end of work the chain is again tested and found to be 10 cm too long. Calculate the true length of line.
3. a) What is direct and indirect ranging? Describe any one method of indirect ranging.
- b) What is Chaining? Enumerates the different possible obstacles in chaining? Describe procedure for calculation for any one.

4. a) What is bearing? Describe WCB and RB. Describe the working of Prismatic compass in details.
- b) The following bearing were observed while traversing with a compass. At which station do you suspect local attraction? Find the correct bearings.

Line	FB	BB
AB	45°45'	226°10'
BC	96°55'	277°50'
CD	29°45'	209°10'
DE	324°30'	144°45'

5. a) What is the principle of Plane table surveying? Describe the merits and demerits of Plane table surveying. Enumerates various accessories used in plane table surveying.
- b) Describe the construction and working of Theodolite in details. What are its uses?
6. a) What is the meaning of Leveling, Reduced level and Bench mark? Describe the types of Bench mark.
- b) Enumerate different types of levels. Describe the construction and working of Dumpy level in details.
7. a) Define Simple, Fly and Reciprocal leveling. Also describe the booking procedure of a leveling work in level book.
- b) The following consecutive reading were taken with a level and a 4.0 m staff on a continuously sloping ground at a common interval of 30 m  
0.680, 1.645, 1.955, 2.430, 2.885, 3.480, 1.155, 1.960, 2.165, 3.400, 0.935, 1.110, 1.650, and 2.700.  
The reduced level of the first point A was 100.000 m. Calculate the RL of all points.