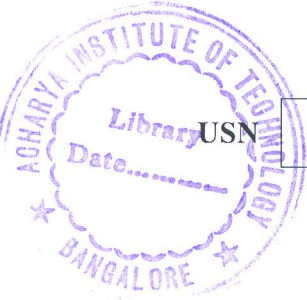


CBCS SCHEME

17CT34



USN

Third Semester B.E. Degree Examination, Dec.2019/Jan.2020 Surveying – I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is survey? Explain the classification of survey. (10 Marks)
 b. Explain the basic principle of surveying. (10 Marks)

OR

- 2 a. What is Chain? Explain the types. (06 Marks)
 b. What is tape? Explain the types. (06 Marks)
 c. The length of a line measured with 20 meter chain was found to be 250 meters. Calculate the true length of the line, if the chain was 10cm too long. (08 Marks)

Module-2

- 3 a. Explain the working principle of optical square with neat diagram. (08 Marks)
 b. Explain field book and field work. (12 Marks)

OR

- 4 a. Write a difference between surveyor's compass and prismatic compass. (08 Marks)
 b. Define and explain :
 (i) WCB (ii) Fore bearing (iii) Dip (iv) Declination. (12 Marks)

Module-3

- 5 a. What is traverse? Explain closed and open traversing. (12 Marks)
 b. The following are observed fore-bearing of the lines:
 (i) AB 12° 24' (ii) BC 119° 48'
 (iii) CD 266° 30' (iv) DE 354° 18'
 (v) PQ N 18° 0' E (vi) QR S 12° 24' E
 (vii) RS S 59° 18' W (viii) ST N 86° 12' W
 Find the back bearing. (08 Marks)

OR

- 6 a. Explain local attraction. (08 Marks)
 b. Explain Bowditches rule and transit rule. (12 Marks)

Module-4

- 7 a. What is dumpy level? Explain the principle of dumpy level. (10 Marks)
 b. Explain the temporary adjustment of dumpy level. (10 Marks)

OR

- 8 a. What is leveling? Explain the types of leveling. (10 Marks)
 b. What are the errors in the leveling? Explain. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-5

- 9 a. Define Counter. Explain the characteristic of counter. (10 Marks)
b. Explain types of counter and list the use of counter map. (10 Marks)

OR

- 10 a. What do you mean by orientation? Explain the methods of orientation. (08 Marks)
b. Explain the different methods of plane table surveying. List the advantages and limitations of plane table survey. (12 Marks)
