

USN

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

14ENG2.7

Second Semester B.Arch. Degree Examination, Dec.2016/Jan.2017

Site Surveying and Analysis

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer ONE full questions from each Module.

2. Missing data, if any, may be suitably assumed and clearly stated.

MODULE - 1

- 1 a. What is Surveying? Explain the classification of surveying. (08 Marks)
 b. List the applications of surveying. (08 Marks)
 c. Write a note on Shrunk scale. (04 Marks)

OR

- 2 a. With a neat sketch, explain indirect ranging or reciprocal ranging. (08 Marks)
 b. List the different types of chains and tapes used in surveying. (04 Marks)
 c. A 20m chain was found to be 15cm too long after chaining a distance of 1500m. It was found to be 20cm too long at the end of days work after chaining a total distance of 3200m. Find the true distance, if the chain was correct before starting of work? (08 Marks)

MODULE - 2

- 3 a. Write a note on cross staff and optical square. (10 Marks)
 b. Explain the temporary adjustment with respect to plane table surveying. (04 Marks)
 c. With a neat sketch, explain intersection method of plane table survey. (06 Marks)

OR

- 4 a. Define the following terms used in leveling : (08 Marks)
 i) Elevation ii) Bench mark iii) Fore sight iv) Line of collimation.
 b. Following consecutive readings were taken on points 1 to 7 along a line
 0.785 , 1.325 , 2.540 , 3.435 , 1.370 , 2.330 , 1.235 , 1.655.
 The instrument was shifted after the fourth reading. First reading was taken on a BM with RL = 100m. Enter the above readings in a page of a level book and calculate the RL of points. Use any method. Also apply arithmetic check. (12 Marks)

MODULE - 3

- 5 a. What is a Contour? What are the characteristics of contour? (10 Marks)
 b. What are the commonly adopted indirect methods of location of contours? Explain any two. (10 Marks)

OR

- 6 a. Explain temporary adjustments of a theodolite. (08 Marks)
 b. Define the following terms, with respect to theodolite : (06 Marks)
 i) Vertical axis ii) Transiting iii) Swinging the telescope.
 c. List the various electronic measurement instruments. List the uses of total station. (06 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 - 4

- 7 a. Explain in detail the reconnaissance survey during the observation of a site. (08 Marks)
b. Explain Aerial and Terrestrial photogrametry. (12 Marks)

OR

- 8 Explain how the analysis of a site is done with respect to the following factors :
a. Topography.
b. Soil.
c. Hydrology.
d. Land forms.
e. Climate. (20 Marks)

MODULE - 5

- 9 a. Explain briefly types of Land survey maps. (10 Marks)
b. What are the various notations to be indicated on a land survey drawing? Explain any ten notations. (10 Marks)

OR

- 10 a. With a neat sketch, briefly explain the setting out of center lines of a building. (10 Marks)
b. Explain the following terms used in setting out works :
i) Reference grids.
ii) Horizontal and Vertical controls. (10 Marks)
