CBCS SCHEME

USN | | | | | | | | | | |

18ENG2.7

Second Semester B.Arch. Degree Examination, June/July 2019
Site Surveying and Analysis

Time: 3 hrs. Max. Marks: 100

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

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-1

1 a. Define Surveying. **(02 Marks)**

b. With neat illustrations explain the fundamental principles of surveying. **(08 Marks)**

c. Write short notes on metric chain and ranging rod. **(10 Marks)**

OR

2 a. Discuss classification of surveying in detail. **(10 Marks)**

b. Write short notes on shrunk scale and graphical scale. **(10 Marks)**

Module-2

3 a. State the purpose of ranging out survey lines. **(02 Marks)**

b. With relevant sketches explain the procedure for reciprocal ranging. **(08 Marks)**

c. Sketch the following cross staff survey of a field ABCDEFGH and calculate its area when all measurements are in meters.

	300 H	
G20	270	
	260	75F
	210	60E
D80	170	
C150	150	
	40	40B
	0A	

(10 Marks)

OR

4 a. List the various instruments used to set out right angles. **(02 Marks)**

b. Explain the working of any two in detail. **(08 Marks)**

c. In detail explain radiation and intersection method of plane table survey. **(10 Marks)**

Module-3

5 a. The following staff readings were observed successively with a level, the instrument having been moved after third, sixth and eighth reading:
2.225, 1.605, 0.985, 2.090, 2.865, 1.265,
0.600, 1.985, 1.045, 2.685 meters
Enter the above readings in a page of a level book and calculate the R.L. of points i) By plane of collimation method ii) By rise and fall method.
The first reading was taken with a staff held on bench mark of 432.385m. **(10 Marks)**

b. Explain dumpy level or tilting level with help of neat sketches. **(10 Marks)**

OR

6 a. Define levelling. **(02 Marks)**
b. State the objectives and used of levelling. **(04 Marks)**
c. Differentiate between self reading staff and target staff. **(04 Marks)**
d. Write short notes on:
i) Bench Mark
ii) Reduced level
iii) Line of collimation
iv) Back sight and fore sight. **(10 Marks)**

Module-4

7 a. Define Contour. **(02 Marks)**
b. With neat illustrations explain the various characteristics of contours. **(08 Marks)**
c. What are the fundamental axes of a theodolite? What should be the desired relation between each of them? **(10 Marks)**

OR

8 a. List the various parts of a transit theodolite. **(04 Marks)**
b. Write short notes on total station. **(06 Marks)**
c. What is grid method of contouring? Explain with a sketch. **(05 Marks)**
d. Differentiate between direct and indirect method of contouring. **(05 Marks)**

Module-5

9 a. What do you understand by site climate? **(05 Marks)**
b. List the various aspects of site analysis. **(05 Marks)**
c. Explain with illustrations how topography and vegetation influence the site design. **(10 Marks)**

OR

10 a. Sketch any 10 conventional symbols used in maps. **(10 Marks)**
b. With a neat sketch briefly explain the settling out of centre lines of a building. **(10 Marks)**

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