

CBCS SCHEME

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15ENG2.7

Second Semester B.Arch. Degree Examination, Dec.2018/Jan.2019 Site Surveying and Analysis

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. What are the applications of surveying? (08 Marks)
b. Explain principles of surveying. (06 Marks)
c. Write differences between plane surveying and geodetic surveying. (06 Marks)

OR

- 2 a. Explain method of stepping on sloping ground. (05 Marks)
b. Write a note on obstacles in chain surveying. (06 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. (09 Marks)

Module-2

- 3 a. Explain survey lines with sketches. (06 Marks)
b. Explain the types of cross-staff used in chain surveying. (06 Marks)
c. Write advantages and disadvantages of plane table surveying. (08 Marks)

OR

- 4 a. Define the following:
i) Bench mark ii) Back sight iii) Fore sight iv) Elevation. (08 Marks)
b. Following readings were taken with a level. First reading was taken on a BM of RL 200m. Calculate the RL of all the stations and apply check. 0.755, 1.545, 2.335, 3.345, 3.655, 0.525, 1.275, 2.630, 2.895, 3.565, 0.345, 1.525, 1.850, 2.675, 3.775. The instrument was shifted after 6th and 10th readings. (12 Marks)

Module-3

- 5 a. Define contour. Explain characteristics of contour. (12 Marks)
b. With sketches explain uses of contours. (08 Marks)

OR

- 6 a. Explain temporary adjustments of a theodolite. (07 Marks)
b. Explain method of reiteration used to measure horizontal angle. (07 Marks)
c. List uses of total station. (06 Marks)

Module-4

- 7 a. Explain method of pacing. (05 Marks)
b. Explain aerial and terrestrial photogrammetry. (10 Marks)
c. Write a short note on the basic observation to be made in the site before starting of work. (05 Marks)

OR

- 8 Explain the analysis of following site factors: i) Topography ii) Soil iii) Hydrology
iv) Land forms v) Climate. (20 Marks)

Module-5

- 9 a. Explain different types of survey maps. (10 Marks)
b. Write a note on grid references. (05 Marks)
c. Write any 5 symbols used in survey maps with explanation. (05 Marks)

OR

- 10 a. Draw a simple centre line of a building and explain how the centre line is drawn in field. (10 Marks)
b. Explain the following:
i) Boning rods and traveler
ii) Sight rails
iii) Profile boards
iv) Slope rails a batter boards. (10 Marks)

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