

CBCS SCHEME

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15ARC/ENG27

Second Semester B.Arch. Degree Examination, Jan./Feb. 2021 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 is Surveying? Explain the classification of surveying. (10 Marks)
b. List the applications of surveying. (10 Marks)

OR

- 2 a. List the different types of chains and tape used in surveying. Explain any one chain with a neat sketch. (07 Marks)
b. Erecting Perpendicular to the chain line, explain any 2 method briefly. (06 Marks)
c. The length of survey line was measured with a 20mts chain and was found to be 1202mts. As a check the length was again measured with 25mts chain and was found to be 1214mts. The 20mts chain was 10cms too long. Find the actual length of 25mts. (07 Marks)

Module-2

- 3 a. Write short note on OPTICAL SQUARE and CROSS STAFF. (06 Marks)
b. Briefly, explain the neat sketch, Radiation and Intersection. (08 Marks)
c. What are advantages and disadvantages of plain table surveying? (06 Marks)

OR

- 4 a. Define the following :
i) Back sight ii) Fore sight iii) Bench mark iv) Elevation. (06 Marks)
b. Explain the temporary adjustment with respect to levelling. (06 Marks)
c. Following staff reading were observed successively with level. The instrument was shifted after third, sixth and eight reading. First reading was taken on a BM of 400.00mt. Enter the below reading in a page of level book and calculate RL at all the points. Apply AC method. (08 Marks)
2.220, 1.600, 0.980, 2.080, 2.860, 1.260, 0.600, 1.980, 1.040, 2.680. Use Rise and Fall

Module-3

- 5 a. What is a Contour? Explain the characteristics of a contour. (12 Marks)
b. List the various uses of contour. (08 Marks)

OR

- 6 a. Explain how horizontal Angle is measured by METHOD OF REPETITION AND METHOD REITERATION (10 Marks)
b. What are the different components of total station? List the various uses of total station. (10 Marks)

Module-4

- 7 a. Explain in detail, what is "RECONNAISSANCE SURVEY"? (08 Marks)
b. Explain AERIAL and TERRESTRIAL PHOTO GRAMMETRY. (12 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.

OR

- 8 Explain how the analysis of site is done with respect to the following : (20 Marks)
 i) Soil ii) Topography iii) Land forms iv) Climate and Microclimate.

Module-5

- 9 a. List any 10 notations used in Land Survey maps. (10 Marks)
 b. List and briefly explain different types of Land survey maps. (10 Marks)

OR

- 10 For a residential building central line is to be marked with all its dimensions work out the details and also explain how the centre line marking is done at 2 sites. Plan of 3 Bed Room units is attached. [Refer Fig Q10]

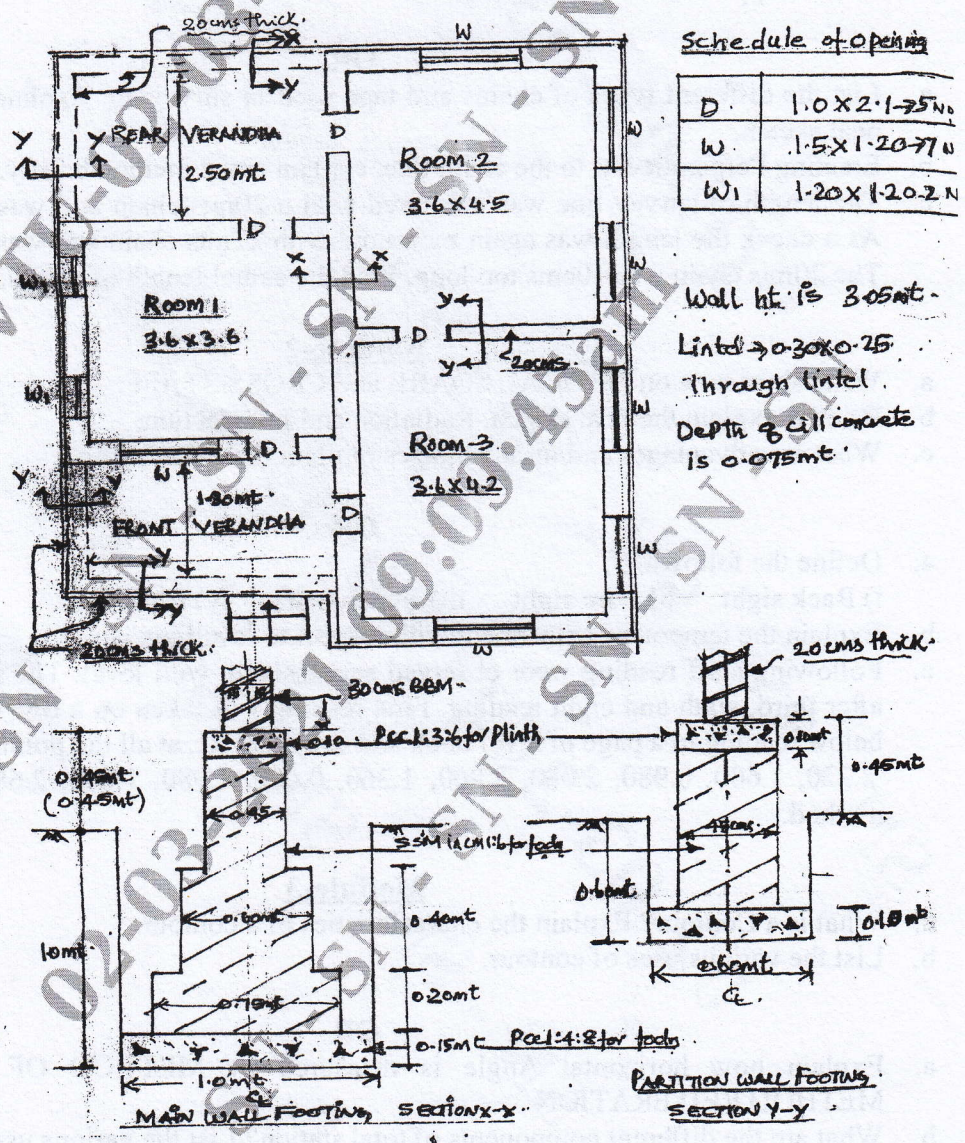


Fig Q10

(20 Marks)
