

CBCS SCHEME

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15ENG27

Second Semester B.Arch. Degree Examination, Aug./Sept.2020 Site Surveying and Analysis

Time: 3 hrs.

Max. Marks:100

Note : 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Missing data may be assumed suitably.

MODULE - 1

- 1 a. Discuss in detail the classification of Survey. (10 Marks)
b. Explain the fundamental principles of Survey. (04 Marks)
c. A 20 mts chain was found to be 10 cm too long after chaining a distance of 1500 mts. It was found to be 18 cms too long at end of day's work after chaining a distance of 2900 mts. Find the correct distance, if the chain was correct before the start for work. (06 Marks)

OR

- 2 a. What are different types of chains commonly used? (10 Marks)
b. Explain 5 different corrections to tape applied in base line measurement. (10 Marks)

MODULE - 2

- 3 a. Explain 4 different methods of measuring horizontal distance on sloping ground. (08 Marks)
b. With a help of neat sketch, explain working of optical square. (05 Marks)
c. Explain the following methods of Plain tabling :
i) Radiation ii) Intersection. (07 Marks)

OR

- 4 a. Define the following terms :
i) Level surface ii) Benchmark iii) Elevation iv) Change point. (08 Marks)
b. The following staff reading were observed successively with a level. The instrument have been moved after second, fifth and seventh readings 0.865 , 2.105 , 1.025 , 1.580 , 1.805 , 2.230 , 2.835 , 2.355 , 1.760 mts. Enter the above readings in a page of a level book and calculate the RL at different points. If RL of Benchmark was 560.50 mts. Apply the necessary checks. (12 Marks)

MODULE - 3

- 5 a. What is a Contour? What are uses of Contour maps? (08 Marks)
b. With sketches, describe the characteristics of Contour. (12 Marks)

OR

- 6 a. Explain the temporary adjustments of theodolite. (06 Marks)
b. Explain method of Repetition and Reiteration with sketch to measure horizontal angle using theodolite. (10 Marks)
c. What are uses of Total station? (04 Marks)

MODULE - 4

- 7 a. Explain the method of measuring horizontal distance using Parsometer and Pacing. (10 Marks)
 b. Explain the essential difference between Terrestrial Photogrammetry, Aerial Photogrammetry. (06 Marks)
 c. While pertaining Site Analysis, what are the various factors considered. (04 Marks)

OR

- 8 a. Explain briefly the following : i) Microclimate ii) Hydrology iii) Topography. (12 Marks)
 b. Explain Horizontal control for setting out. (08 Marks)

MODULE - 5

- 9 a. Write Conventional symbols used for the following:
 i) Chain line ii) Level crossing iii) Refuse Heap iv) Benchmark (06 Marks)
 v) Railway Double line vi) Fenced (Barbed wire). (12 Marks)
 b. What are different Reference girds used for setting out works? (02 Marks)
 c. What is Vertical control?

OR

- 10 A plan of Residential unit is (2 roomed) enclosed in Fig.Q10. Draw the centre line diagram for the same with necessary checks. (20 Marks)

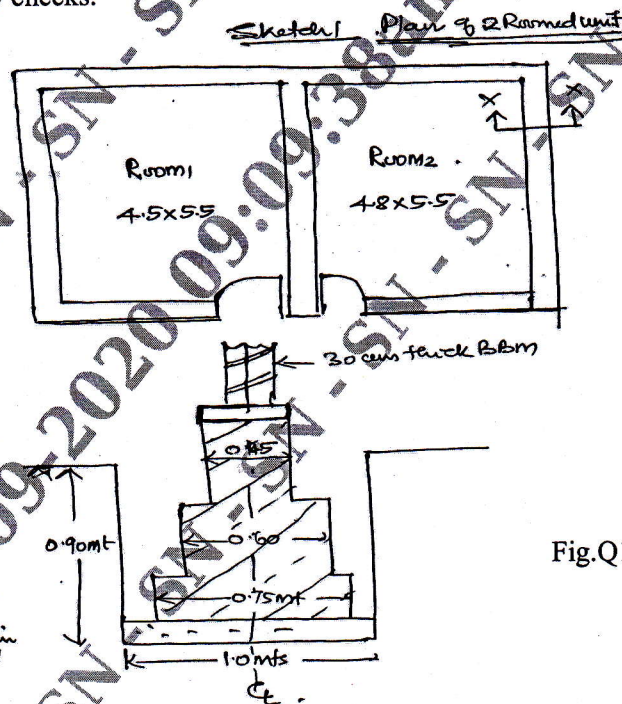


Fig.Q10
