

CBCS SCHEME



USN

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

15ENG27

Second Semester B.Arch. Degree Examination, Jan./Feb. 2023 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

- a. What is surveying? Explain the classification of surveying. (08 Marks)
b. Explain the principle of surveying. (12 Marks)

OR

- a. List and explain the different types of chains used in surveying. (10 Marks)
b. What is Ranging? Explain indirect ranging with a neat sketch. (10 Marks)

Module-2

- a. Explain the following with a neat sketch:
(i) Total Station (ii) Baseline (iii) Tie Station (10 Marks)
b. Write a note on Cross Staff and Optical Square. (10 Marks)

OR

- a. Define the following terms used in levelling:
(i) Elevation (ii) Benchmark (iii) Foresight (iv) Line of collimation (10 Marks)
b. Plot the following cross staff survey of a field ABCDEFG and calculate its area. [Refer Fig.Q4(b)].

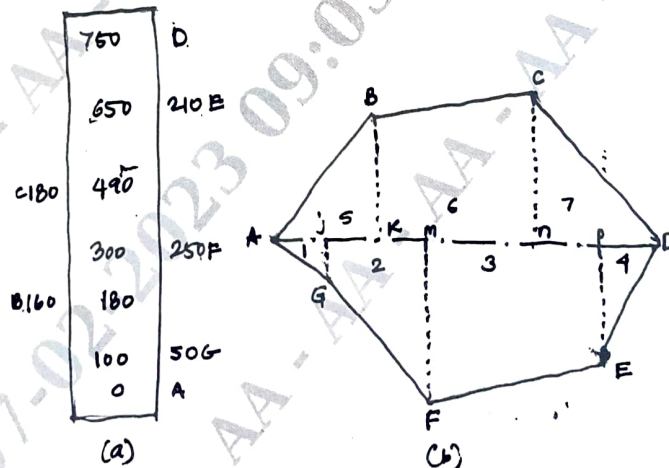


Fig.Q4(b)

(10 Marks)

Module-3

- a. What is a contour? List the characteristics of counter line. (10 Marks)
b. List the various uses of contour map. (10 Marks)

OR

- a. How do you measure horizontal angle by repetition method using theodolite. (10 Marks)
b. What are the components of total station? (10 Marks)

Module-4

- 7 Explain how analysis of a site is done with respect to the following factors:
- | | | |
|----------------|-------------|------------|
| i) Topography | ii) Soil | |
| iii) Hydrology | iv) Climate | (20 Marks) |

OR

- 8 a. Explain Reconnaissance survey during observation of site. (10 Marks)
b. What is aerial and terrestrial photogrammetry? (10 Marks)

Module-5

- 9 a. Explain briefly types of land survey maps. (10 Marks)
b. Draw any 10 notations used to indicate land features on maps. (10 Marks)

OR

- 10 a. With a relevant sketch, explain the process of setting out of centre line 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)
