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Second Semester B.Arch. Degree Examination, Dec.2016/Jan.2017
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 classifications of surveying. (08 Marks)
 b. List the applications of surveying. (08 Marks)
 c. Write a note on shrunk scale. (04 Marks)

OR

- 2 a. With a neat sketch explain indirect ranging or reciprocal ranging. (08 Marks)
 b. List the different types of chains and tapes used in surveying. (04 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? (08 Marks)

Module-2

- 3 a. Write a note on cross staff and optical square. (10 Marks)
 b. Explain the temporary adjustment with respect to plane table surveying. (04 Marks)
 c. With a neat sketch explain intersection method of plane table survey. (06 Marks)

OR

- 4 a. Define the following terms used in levelling: i) Elevation; ii) Bench Mark; iii) Fore sight; iv) Line of collimation. (08 Marks)
 b. Following consecutive readings were taken on points 1 to 7 along a line:
 0.785, 1.325, 2.540, 3.435, 1.370, 2.330, 1.235, 1.655.
 The instrument was shifted after the fourth reading. First reading was taken on a BM with RL = 100m. Enter the above readings in a page of a level book [Prepare a similar format in the booklet] and calculate the RL of points. Use collimation or height of instrument method. Also apply arithmetical check. (12 Marks)

Module-3

- 5 a. What is a contour? What are the characteristics of a contour? (10 Marks)
 b. What are the commonly adopted indirect methods of location of contours? Explain any two. (10 Marks)

OR

- 6 a. Explain the temporary adjustments of a theodolite. (08 Marks)
 b. Define the following with respect to theodolite:
 i) Vertical axis
 ii) Transiting
 iii) Swinging the telescope. (06 Marks)
 c. List the various electronic measurement instruments. List the uses of total station. (06 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.

Module-4

- 7 a. Explain in detail the reconnaissance survey during the observation of a site. (08 Marks)
b. Explain aerial and terrestrial photogrammetry. (12 Marks)

OR

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

Module-5

- 9 a. Explain briefly types of land survey maps. (10 Marks)
b. What are the various notations to be indicated on a land survey drawing? Explain.
(Any 10 notations). (10 Marks)

OR

- 10 a. With a neat sketch briefly explain the setting out of center lines of a building. (12 Marks)
b. Explain the following terms used in setting out works:
i) Reference grids ; ii) Horizontal and vertical controls. (08 Marks)

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