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14ENG2.7

Second Semester B.Arch. Degree Examination, Dec.2015/Jan.2016
Site Surveying and Analysis

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer ONE full question from each Module.
2. Missing data, if any, may be suitably assumed and clearly stated.

MODULE – 1

- 1 a. Differentiate between Plane surveying and Geodetic surveying. (08 Marks)
b. Define surveying and briefly explain principles of surveying. (12 Marks)

OR

- 2 a. Explain ranging and different types of ranging. (12 Marks)
b. The length of a line measured with a 20m chain was found to be 250m. Calculate the true length of the line if the chain was 10cm too long. (08 Marks)

MODULE – 2

- 3 a. How do you erect a perpendicular to a chain line from a point on it and from a point outside the chain line? (12 Marks)
b. Explain advantages and disadvantages of plane table surveying. (08 Marks)

OR

- 4 a. Define the following terms : i) Level surface ii) Bench mark iii) Elevation iv) Turning point. (08 Marks)
b. The following staff readings were observed successively with a level, the instrument having been moved after third, sixth and eighth readings. (12 Marks)
2.228 , 1.606 , 0.988 , 2.090 , 2.864 , 1.262 , 0.602 , 1.982 , 1.044 , 2.684 meters. Calculate the RL of points if the first reading was taken with a staff held on a bench mark of 432.384m.

MODULE – 3

- 5 a. Describe with the help of sketches, the characteristics of contour. (10 Marks)
b. Explain with sketches, the uses of contour maps. (10 Marks)

OR

- 6 a. How will you set out a horizontal angle by method of repetition? (10 Marks)
b. Explain with a sketch, the temporary adjustment of a theodolite. (10 Marks)

MODULE – 4

- 7 Using photography as a surveying method to survey 1 acre site which is heavily contoured explain your approach to figure out the terrain. (20 Marks)

OR

- 8 Explain how the analysis of a site (upto 1 acre) is done with respect to the following factors :
a. Topography b. Influence of water bodies c. Microclimate. (20 Marks)

MODULE – 5

- 9 What are the various notations to be indicated in a land survey drawing? Explain each of their significance. (20 Marks)

OR

- 10 Sketch to a scale the plan of a small residence. Indicate all the dimensions including centre line. (20 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 of equations written eg. 12+8=50, will be treated as malpractice.