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10CV32

Third Semester B.E. Degree Examination, June/July 2016
Building Materials and Construction Technology

Time: 3 hrs.

Max. Marks: 100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART - A

- 1 a. Define foundation and enumerate the objectives of the foundations. (05 Marks)
b. What is safe bearing capacity of soil? List the types of methods adopted to examination of ground and explain any two of them. (07 Marks)
c. List the types of foundation and explain any two of them with neat sketches. (08 Marks)
2 a. Explain the classification of stone masonry with neat sketches. (08 Marks)
b. Explain: i) Queen closer ii) King closer, with neat sketches. (04 Marks)
c. Explain any two of the following : i) English Bond ii) Flemish Bond iii) Cavity walls. (08 Marks)
3 a. Write a neat diagram of segmental arch and label it. (04 Marks)
b. List the classification of arches and explain any one of them in detail. (08 Marks)
c. Write short notes on: i) Chejja ii) Canopy iii) Balcony iv) Lintels (08 Marks)
4 a. Define a pitched roof and explain its various types. (10 Marks)
b. Give a list of materials which are commonly used as floorings and give a brief description of any four of them in detail. (10 Marks)

PART - B

- 5 a. Explain with neat sketches of i) Lugged and braced doors ii) skylights. (08 Marks)
b. Discuss the provisions of doors and windows with respect to the following : i) Location ii) Size. (05 Marks)
c. Explain the properties of materials used in doors and windows. (07 Marks)
6 a. Explain the requirements of a good staircase. (04 Marks)
b. List the types of stairs and explain with neat sketches of Dog-legged stairs and circular stairs. (10 Marks)
c. The inside dimensions of a stair case in a residential building are 2.0 m x 4.60 m. The height of floor is 3.30 m and the roof consists of RCC slab is 12 cms thickness. Design a proper layout of dog legged staircase for this building. (06 Marks)
7 a. Mention the tools which are required in the plastering work. (04 Marks)
b. Enumerate the defects found in plastering work. (08 Marks)
c. Explain briefly painting on different surfaces. (08 Marks)
8 a. Differentiate between the following : i) Formwork and Scaffolding ii) Damp-proofing and Water - proofing. (12 Marks)
b. Write short notes on : i) Form work for columns ii) Effects of dampness. (08 Marks)

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Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank spaces. 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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