

CBCS SCHEME



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18CV34

Third Semester B.E. Degree Examination, June/July 2024

Building Materials and Construction

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Mention the field and laboratory tests to be conducted on Quality of Bricks. (04 Marks)
- b. What do you mean dressing of stones? Explain different types of dressing of stones. (08 Marks)
- c. Discuss the characteristics of good building stone. (08 Marks)

OR

- 2 a. Briefly explain the advantages of cement concrete blocks. (06 Marks)
- b. Discuss the importance of size, shape and texture on coarse aggregates. (06 Marks)
- c. Explain briefly sieve analysis, specific gravity, bulking and moisture content of fine aggregate. (08 Marks)

Module-2

- 3 a. Narrate briefly different methods involved in site exploration for foundation. (06 Marks)
- b. State the comparative merits and demerits of stone and bricks masonry. (06 Marks)
- c. What is meant by Safe Bearing Capacity (SBC) of soil? How do we testing it? (08 Marks)

OR

- 4 a. With neat sketches describe different types of joints in stone masonry. (08 Marks)
- b. Discuss methods of construction and advantages of cavity and partition walls. (06 Marks)
- c. Explain briefly classification of Stone masonry. (06 Marks)

Module-3

- 5 a. Distinguish clearly between Lintle and an Arch. How doe flat stone arch differ from a stone Lintle? (06 Marks)
- b. Emphasize the stability of an arch with valid reasons. (06 Marks)
- c. Explain the definition, construction and functions of Chejja, Balcony and Canopy. (08 Marks)

OR

- 6 a. With the help of neat sketch describe Queen Post Truss. (06 Marks)
- b. What are the factors to be considered while selecting roof coverings? (06 Marks)
- c. Mention requirements of good Floor and explain the method of constructing cement concrete floor. (08 Marks)

Module-4

- 7 a. Discuss briefly classification of stairs. (06 Marks)
- b. Explain the following Doors with neat sketches:
(i) Fully Paneled Door (ii) Revolving Door (06 Marks)
- c. Describe the following windows with neat sketches :
(i) Bay window (ii) Corner window
(iii) Pivoted window (iv) Louvered window. (08 Marks)

OR

- 8 a. Write explanatory note on Shoring and under pinning formwork. (04 Marks)
b. What are the types of Scaffolding commonly used? Draw a neat sketch to illustrate brick layers scaffolding (08 Marks)
c. Plan a dog-legged stair for a building in which the vertical distance between the floors is 3.6m. The stair wall measures 2.5×5.0 m. (08 Marks)

Module-5

- 9 a. Write objectives and requirements of good plastering. (08 Marks)
b. Discuss the defects involved in plastering. (08 Marks)
c. Explain briefly the method of applying Stucco-Plastering. (04 Marks)

OR

- 10 a. Discuss the causes, effect and methods of controlling dampness in building. (08 Marks)
b. Mention the objectives of painting and point out the characteristics of an ideal paint. (06 Marks)
c. Describe the procedure of painting on wood surface and inner walls of residential building. (06 Marks)
