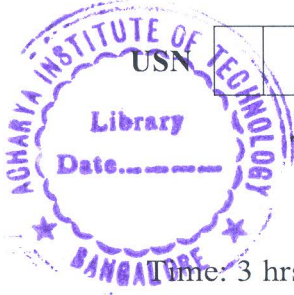


CBCS SCHEME

15CV36



Third Semester B.E. Degree Examination, June/July 2019 Building Materials and Construction

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the factors causing deterioration of stonework. (06 Marks)
b. List the tests conducted on Fine aggregates. Explain any two tests in detail. (10 Marks)

OR

- 2 a. Write notes on :
(i) Stabilized Mud Blocks (ii) Grading of aggregates (iii) Timber as construction. (06 Marks)
b. List the tests on coarse Aggregates. Explain (i) Aggregate Impact test (ii) Aggregate Abrasion test. (10 Marks)

Module-2

- 3 a. What are the functions of good foundation? (05 Marks)
b. What are the requirements of good building stones? (05 Marks)
c. Briefly explain load bearing walls and cavity walls. (06 Marks)

OR

- 4 a. Define safe Bearing capacity. List the methods of improving bearing capacity of soil and explain any two methods. (08 Marks)
b. Find the dimensions of combined rectangular footing for two columns A and B carrying loads 1000 N and 1500kN respectively. Column A is 500mm × 500mm in size and column B is 600mm × 600mm in size. The centre to centre spacing of columns is 5.0m. The SBC of soil may be taken as 250 kN/m². The footing is not to project more than 250mm beyond the outer edge of smallest column. (08 Marks)

Module-3

- 5 a. Draw a neat sketch of an arch and explain various technical terms related to an arch. (08 Marks)
b. List the types of roofs and explain any two with neat sketches. (08 Marks)

OR

- 6 a. Define Lintel. Explain different types of lintels with neat sketches. (10 Marks)
b. Briefly explain the functions of Chejja, Canopy and Balcony. (06 Marks)

Module-4

- 7 a. What are the factors considered while locating Doors and windows? (05 Marks)
b. State briefly the requirements of a good stair. (05 Marks)
c. Explain with the help of sketches the following terms:
(i) Nosing (ii) Handrail (iii) Landing (iv) Newel post. (06 Marks)

OR

- 8 a. Explain in brief with neat sketches:
(i) Panelled door (ii) Revolving Door (iii) Corner window (iv) Louvered window (10 Marks)
- b. Plan a dog-legged staircase for a building in which the vertical distance between the floors is 3.0m. The stair hall measures 2.8m × 5.8m. (06 Marks)

Module-5

- 9 a. Discuss the defects in plastering. (06 Marks)
- b. Explain in brief the causes and effects of dampness. (10 Marks)

OR

- 10 a. List the methods of plastering and explain any two. (08 Marks)
- b. List the types of paints. Describe the procedure of painting on steel surfaces. (08 Marks)

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