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## Third Semester B.E. Degree Examination, July/August 2022 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. Explain various uses of stones in construction industry with examples. (10 Marks)  
b. List and explain the qualities of good timber. (10 Marks)

OR

- 2 a. Explain with a neat sketch, the manufacturing of bricks in any one type of continuous Kiln. (10 Marks)  
b. How fine aggregate are classified? Also explain the bulking of fine aggregate. (10 Marks)

### Module-2

- 3 a. What is primary investigation of soil? Explain safe bearing capacity of soil. (10 Marks)  
b. With neat sketches, explain different types of stone masonry. (10 Marks)

OR

- 4 a. Explain types of Foundations with neat sketches. (10 Marks)  
b. Explain the salient features of Double Flemish band in  $1\frac{1}{2}$  brick thick wall with a neat sketch. (10 Marks)

### Module-3

- 5 a. Explain : (i) Balcony (ii) Chezza (iii) Canopy. (10 Marks)  
b. List the factors in selecting a Flooring material and explain any two types of flooring. (10 Marks)

OR

- 6 a. With a neat sketch, explain the components of an Arch. (10 Marks)  
b. Draw a neat sketch of Queen Post truss and identify the components with approximate sectional dimensions for a span of 5 m. (10 Marks)

### Module-4

- 7 a. Explain the principles in positionary doors and windows in a building with examples. (10 Marks)  
b. Plan a dog legged stair case for a residential building in which stair case room measures 2.5m x 5.5m (internal dimensions). The height between the floors is 3.3 m. (10 Marks)

OR

- 8 a. Explain with neat sketches, (i) Panelled door (ii) French window. (10 Marks)  
b. Explain (i) Form work for R.C.C slab. (ii) Scaffolding for plastering  
(iii) Shoring for earth work. (iv) Under pinning of foundations (10 Marks)

### Module-5

- 9 a. Explain the method of plastering a newly constructed brick wall step by step. (10 Marks)  
b. List and explain the applications various types of paints. (10 Marks)

OR

- 10 a. List the defects in plastering and explain the methods of damp proofing. (10 Marks)  
b. What is Varnish? What are its components? How it is applied on wooden surfaces. (10 Marks)

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