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**Third Semester B.E. Degree Examination, Feb./Mar. 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. What do you mean by Dressing of Stones? Explain types of dressing of stones. (08 Marks)  
b. Discuss the characteristics of good building stone. (08 Marks)  
c. Mention the qualities of good bricks. (04 Marks)

**OR**

- 2 a. Explain with neat sketch, the construction and working of a clamp, for burning of bricks. (08 Marks)  
b. Briefly discuss the advantages of cement concrete blocks. (06 Marks)  
c. Discuss the importance of size, shape and texture of coarse aggregates. (06 Marks)

**Module-2**

- 3 a. Define Foundation. Discuss functions and causes for the failure of foundation. (08 Marks)  
b. Explain different methods involved in site exploration for foundation. (06 Marks)  
c. With neat sketches discuss the features of Flemish bond and English bond of one and half thick brick wall. (06 Marks)

**OR**

- 4 a. Explain types of joints in stone masonry with neat sketches. (08 Marks)  
b. State the comparative merits and demerits of stone and brick masonry. (06 Marks)  
c. Describe method of construction and advantages of cavity and partition walls. (06 Marks)

**Module-3**

- 5 a. With neat sketches, explain various components of segmental arch. (06 Marks)  
b. Distinguish clearly between Lintel and an Arch. How does flat stone arch differs from a stone lintel? (06 Marks)  
c. Explain briefly the definition and functions of the Chejja, Balcony and Canopy. (08 Marks)

**OR**

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

**Module-4**

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

OR

- 8 a. Plan a dog-legged stair for a building in which the vertical distance between the floor is 3.6 meter. The stair wall measure  $2.5 \times 5.0$  meter. (08 Marks)
- b. What are the types of Scaffolding commonly used? (08 Marks)
- c. Write explanatory note on shoring and under pinning form work. (04 Marks)

Module-5

- 9 a. Write the objectives of plastering and requirement of good plaster. (08 Marks)
- b. Discuss the defects in plastering. (07 Marks)
- c. Explain the method of applying stucco plastering. (05 Marks)

OR

- 10 a. Discuss the causes, effects 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)

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