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## Third Semester B.E. Degree Examination, Dec.2019/Jan.2020 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 importance of stones Bricks and Timber as construction materials. (06 Marks)  
 b. Explain the manufacture process of Brick with necessary flow chart. (08 Marks)  
 c. What is Bulking of Sand? Explain its importance in construction field. (06 Marks)

OR

- 2 a. What are the requirements of good building stones? (06 Marks)  
 b. What are the constituents of good brick earth? Explain. (06 Marks)  
 c. Which are the methods of seasoning of Timber? Describe them brief. (08 Marks)

### Module-2

- 3 a. Which are the functions of foundation? Explain them briefly. (06 Marks)  
 b. Sketch the plan of alternate courses 1 brick thick wall in English bond. Mention its essential features. (08 Marks)  
 c. What are the General principles to be observed in stone masonry? (06 Marks)

OR

- 4 a. Differentiate between strip footing and strap footing with sketches. (06 Marks)  
 b. Sketch the elevation of Flemish bond and mention its special features. (08 Marks)  
 c. Differentiate between uncoursed rubble masonry and Random rubble masonry with a sketch. (06 Marks)

### Module-3

- 5 a. Draw a neat sketch of an arch and Label its parts. (06 Marks)  
 b. Explain the procedure for laying Marble flooring in Grand floor with a sketch. (06 Marks)  
 c. Mention the requirements of good roof. Draw the sketch of wooden king post truss (half part). (08 Marks)

OR

- 6 a. Discuss various modes of failure of an arch. What are the remedies? (06 Marks)  
 b. Explain the procedure for laying Mosaic flooring in ground floor with a sketch. (06 Marks)  
 c. Draw the sketch of wooden Queen post truss (half part) and label its parts. (08 Marks)

### Module-4

- 7 a. Draw a sketch of a wooden door frame with shutter and label its parts. (06 Marks)  
 b. What are the requirements of good stair? (06 Marks)  
 c. What is meant by shoring? Explain Raking shore with a neat sketch. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 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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OR

- 8 a. Write a note on Bay window with a sketch. (06 Marks)  
b. Plan a dog legged stair for a building in which the vertical distance between the floors is 3.6m. The stair hall measure 2.5m × 5m. (08 Marks)  
c. Write a note on Revolving Door with a neat sketch. (06 Marks)

Module-5

- 9 a. What are the requirements of plastering? (06 Marks)  
b. Explain various causes of Dampness in building. (06 Marks)  
c. Describe the constituents of a paint, mentioning the specific functions of each. (08 Marks)

OR

- 10 a. Write a note on various defects in plastering. (06 Marks)  
b. What are the ill effects of dampness in building? Explain them briefly. (06 Marks)  
c. Describe the procedure of painting: i) Newly plastered surfaces ii) Iron and steel surfaces. (08 Marks)

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