Third Semester B.E. Degree Examination, June/July 2017
Building Materials and Construction Technology

Time: 3 hrs.                          Max. Marks: 100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

1 a. What is soil exploration? Why it is necessary? (04 Marks)
b. Name various types of foundations used in practice. Discuss construction of spread footing foundation. (10 Marks)
c. Explain pile foundations with neat sketches. (06 Marks)

2 a. What is significance of bonding in brickwork? Differentiate between English bond and double Flemish bond with sketches. (10 Marks)
b. Explain briefly with sketches types of stone masonry. (10 Marks)

3 a. Explain the functions of lintel and chezza and list different types of lintels. (06 Marks)
b. Differentiate between lintel and an arch. (04 Marks)
c. List different types of arches and with a neat sketch of a typical arch, explain its components. (10 Marks)

4 a. Sketch a king post truss naming its parts, explain the nature of force in each member. (10 Marks)
b. Write short notes on following types of flooring explaining their advantages:
   i) Cement concrete flooring
   ii) Marble flooring
   iii) Granite flooring
   iv) Wood flooring (10 Marks)

PART – B

5 a. List the factors in fixing the size and location of doors and windows. (06 Marks)
b. Draw a sketch of a paneled door and name its parts with standard dimensions. (06 Marks)
c. Explain with sketches: i) Bay window, ii) Cleary storey window. (08 Marks)

6 a. Briefly explain with neat sketches different types of staircases used in practice. (10 Marks)
b. Design a dog legged stair case for a residential building for staircase room size 2.5m × 4.8m, considering the height of the slab from finished floor level as 3.15 m. Draw neat sketches. (10 Marks)

7 a. Discuss various types of painting with sketches. (08 Marks)
b. Draw neat sketches of different types of plaster finishes. (06 Marks)
c. Describe the method of removing oil paint from wood work and repainting it. (06 Marks)

8 Write short notes on:
   a. Form work and scaffolding
   b. Damp proofing of buildings
   c. Types of glasses
   d. Plastics in buildings (20 Marks)

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