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Third Semester B.E. Degree Examination, July/August 2021 Building Materials and Construction

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1
 - a. What are the requirements of good building stones? Explain. (06 Marks)
 - b. Describe the constituents of good brick earth along with their importance. (06 Marks)
 - c. Explain the importance of shape, size and texture of coarse aggregates in cement concrete making. (08 Marks)

- 2
 - a. Explain bulking of sand with its practical importance. (06 Marks)
 - b. Which are the factors causing deterioration of stone? And write about preservation of stones. (06 Marks)
 - c. Describe the construction and working of Bull's Trench Kiln with sketch. (08 Marks)

- 3
 - a. Explain the functions of foundation. (06 Marks)
 - b. How piles are classified based on function? Explain with sketches. (06 Marks)
 - c. Draw the plan of one and half brick thick English bond. Mention its salient features. (08 Marks)

- 4
 - a. Differentiate between strip footing and strap footing with sketch. (06 Marks)
 - b. Write a note on Ashlar type of stone masonry. (06 Marks)
 - c. Describe the construction and necessity of Grillage foundation with its plan sketch. (08 Marks)

- 5
 - a. Draw the sketch of an elementary arch and level its parts. (06 Marks)
 - b. Write a note on : i) Stone lintel ii) RCC lintel. (06 Marks)
 - c. What are requirements of a good floor? Draw the sketch of ground floor marble flooring with its components. (08 Marks)

- 6
 - a. Explain various modes of failure of an arch with its remedial measures. (06 Marks)
 - b. Differentiate between sloped roof and flat roof with reference to advantages. (06 Marks)
 - c. Draw the sketch of King post wooden roof truss (half part) and label its parts. (08 Marks)

- 7
 - a. Differentiate brick layer's scaffolding over Mason's Scaffolding. (06 Marks)
 - b. What are the requirements of good stair? Briefly explain the types of stairs. (06 Marks)
 - c. With a neat sketch, explain i) Bay window ii) Dormer window. (08 Marks)

- 8
 - a. Explain Raking shore with a neat sketch. (06 Marks)
 - b. Write the requirements of locating door and window. (06 Marks)
 - c. Explain salient features of framed and paneled double shutter door with sketch. (08 Marks)

- 9
 - a. What are the objects and requirements of good plaster? (06 Marks)
 - b. Name and explain constituents of oil paint. (06 Marks)
 - c. Explain procedure of painting i) New wood surface ii) New plastered surface. (08 Marks)

- 10
 - a. Explain the defects in plastering. (06 Marks)
 - b. Explain the procedure adopted in cement – lime plastering. (06 Marks)
 - c. Briefly explain the methods of damp proofing. (08 Marks)

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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.