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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Third Semester, B.E. - Civil Engineering

Semester End Examination; Dec. - 2014

Building Materials and Construction

Time: 3 hrs

Max. Marks: 100

Note : i) Answer **FIVE** full questions, selecting **ONE** full question from each Unit.
ii) Assume suitable missing data if any.

Unit - I

1. a. List the qualities of good building stones. 10
- b. List the qualities of good bricks. 10
- 2 a. Explain any five defects of timber. 10
- b. Explain any two method of seasoning of timber. 10

Unit - II

- 3 a. Define SBC of soil. Explain the methods which are used to improve SBC of soil. 10
- b. Write a note on foundations in black cotton soil. 10
4. a. Draw neat sketches of (i) Raft footing and (ii) Combined footing. 10
- b. Explain different types of pile foundations. 10

Unit - III

- 5 a. Differentiate between English bond and Flemish bond. Draw sketches. 10
- b. Write a note on reinforced brick work. 10
- 6 a. Explain with a neat sketch pit type underpinning. 10
- b. Explain the stages of laying polished marble flooring. 10

Unit - IV

- 7 a. Draw a neat sketch of wood queen Post roof truss for a span of 12 m and label the parts. 10
- b. Explain the requirements of ideal staircase. 10
- 8 a. Explain collapsible door with a neat sketch. 10
- b. With a neat sketch write a note on dormer window. 10

Unit - V

- 9 a. Explain the purpose of (i) Painting and (ii) Plastering 10
- b. Explain the procedure involved in polishing wood. 10
- 10a. List the advantages and disadvantages of pre fab construction. 10
- b. Write a note on damp proof construction. 10