

CE-302

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**B.Tech.**  
**(SEM- III) ODD SEMESTER EXAMINATION, 2015-16**  
**BUILDING MATERIALS & CONSTRUCTION**

**Time: 3 Hours**

**Total Marks: 100**

- Note:** (i) Attempt ALL questions.  
(ii) Marks are indicated against each question.  
(iii) Assume any data suitably, if required.

1. Attempt any **FOUR** parts of the following **5x4=20**
  - (a) What are the different types of cement? Discuss. What are the various test carried out in laboratory to check the quality of Cement? Explain the initial and final setting time test.
  - (b) Explain the classification of and properties of different types of bricks.
  - (c) What is Cement concrete? What are the different tests carried out on cement concrete to find the workability of concrete.
  - (d) What do you understand by seasoning of Timber? Explain any one method of seasoning of timber.
  - (e) Write a short note on the Physical properties of Engineering materials.
  - (f) Compare between the Fat lime and hydraulic lime.
2. Attempt any **TWO** parts of the following **10x2=20**
  - (a) Discuss the various factors affecting the physical properties of steel. What are the common defects in steel found?
  - (b) Write the properties of distempers and the process of distempering.
  - (c) What are the important non ferrous metals? Write the properties of Aluminium.
3. Attempt any **TWO** parts of the following **10x2=20**
  - (a) What are the different types of staircases used in buildings? Explain with the help of a neat sketch the Doglegged staircase, indicating its suitability for specific use.
  - (b) Differentiate and compare English bond, Flemish bond and Double Flemish bond.
  - (c) What are the different types of floorings? Explain how the selection of flooring material is done.
4. Attempt any **TWO** parts of the following **10x2=20**
  - (a) List the different types of doors provided in a building. Draw a neat sketch of a simple panel door and explain the various component parts (technical terms) of the door.
  - (b) What are the different types of windows provided in the buildings? Explain the working of any one with the help of neat sketch.
  - (c) How the selection of size, shape, location, and number of windows are decided in a room? Discuss.
5. Attempt any **TWO** parts of the following **10x2=20**
  - (a) What are the difference between the plastering and pointing? How the cement plastering is done?
  - (b) What do you understand by the term "Water supply and sanitation" in a building? What are the different materials used for water supply service pipes? Give their advantages and limitations.
  - (c) Write short notes on any two:
    1. Distempering
    2. Colour Washing
    3. Painting