



(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 100312**

Roll No.

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### B. Tech.

(SEM. III) (ODD SEM.) THEORY  
EXAMINATION, 2014-15

### BUILDING MATERIAL & CONSTRUCTION

Time : 3 Hours]

[Total Marks : 100

- Note:** (1) Attempt all questions.  
(2) All questions carry equal marks.

1. Attempt any four parts: **5x4=20**
  - (a) Explain different characteristics of stones and their method of testing?
  - (b) What are the constituent materials & properties of cement concrete. Also discuss the methods of curing of cement concrete
  - (c) What do you mean by seasoning of Timber? What are its advantages and fundamental Engineering Properties of Timber?
  - (d) Discuss the manufacturing process of Clay Bricks and their uses ?
  - (e) Write down the process of manufacturing of cement and their uses.
  - (f) Discuss the problem of lime bursting and efflorescence in bricks?
  
2. Attempt any four parts : **5x4=20**
  - (a) Discuss the properties, ingredients & uses of Glass used in building construction?
  - (b) Explain constituents, desirable properties & types of Paints.
  - (c) Write note on the following :
    - (a) Thermosetting and thermoplastic
    - (b) Common terms used in brick masonry
  
3. Attempt any two parts : **10x2=20**
  - (a) Discuss in detail the following :
    - (a) Staircase construction (neat sketch)
    - (b) Cavity wall and hollow block
  - (b) Explain the classification of Stone Masonry and Bonds used in Brick Masonry?
  - (c) What are the different types of Ground Floor? Describe them briefly.
  
4. Attempt any two parts : **10x2=20**
  - (a) Discuss different types of Roofs? Write a short note on Queen Post Truss with neat sketch.
  - (b) What is the function of Linters and its classification?
  - (c) Explain the different type of Doors and Windows?
  
5. Attempt any two parts : **10x2=20**
  - (a) Define the term Ventilation? Discuss the factors which affect Ventilation? Which point should be kept in mind while planning ventilation in public building?
  - (b) Explain the following :
    - (a) Mechanicals Lifts and Escalators
    - (b) Acoustics
    - (c) Water supply system and Fixtures
  - (c) Explain the following :
    - (a) Plastering and pointing
    - (b) Drains.