



(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
- (d) Explain the properties & characteristic of reinforcing steel.
- (e) Discuss the properties & uses of the following
 - (a) Aluminum
 - (b) Cast iron
- (f) Write short note on the following :
 - (a) Types of sound insulating material
 - (b) Types of thermal insulating material

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.