

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

PAPER ID : 0022

Roll No.

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B.Tech.

(SEM. III) THEORY EXAMINATION 2011-12

BUILDING MATERIALS AND 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 : **(5×4=20)**

(a) Give the list of important physical properties of building materials. Define any four properties.

(b) How the stones are used in the construction of buildings ?
Give the various uses of which the stones are employed.

(c) What are the various tests carried out on bricks to find out its suitability for construction works ? Write a brief note.

(d) What is seasoning of timber ? How the seasoning is done ?

(e) Describe the various forms of Bitumen.

(f) Write a brief note on classification of Lime.

2. Attempt any **four** parts of the following : **(5×4=20)**

(a) What is the use of Plastic as a building material ? Give its classification.

- (b) Mention the properties and use of various types of glasses.
- (c) Give the objects of Distemping. How it is applied ?
- (d) What is Ferrous and Non Ferrous Metal ? What are the various standard shapes in which the rolled steel sections are available in the market ?
- (e) Give in brief the important properties of Aluminum.
- (f) Give a brief description of different types of Paints.

3. Attempt any **two** parts of the following : **(10×2=20)**

- (a) Describe the various types of building as per National Building code of India.
- (b) What is the significance of bonding in brick work ? Explain by neat sketches the difference between English bond, Double Flemish bond and Single Flemish bond.
- (c) What are the various types of flooring used in ground floor construction ? Write a descriptive note on concrete flooring construction.

4. Attempt any **two** parts of the following : **(10×2=20)**

- (a) Explain how do you classify the doors from view point of their operational movements. Draw neat sketch of any **one** of the following :
 - (i) Battened ledged and braced door
 - (ii) Double leafed 6-paneled door.

- (b) What are the different types of Flat Terraced Roofing ?
Give the advantage and disadvantage of Flat Terraced Roof.
- (c) What is the functional requirement of lintel ? Also discuss
the advantages and disadvantages of sloping roof.

5. Attempt any **two** parts of the following : **(10×2=20)**

- (a) Give the general fire safety requirements for the buildings
as per IS code.
- (b) Discuss in brief general principles and factors in acoustical
design of a hall.
- (c) Write short notes on :
- (i) Pointing
 - (ii) White Washing and Colour Washing.