



Printed Pages : 3

ECE302

(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) ODD SEMESTER THEORY EXAMINATION 2009-10
BUILDING MATERIALS & CONSTRUCTION**

Time : 3 Hours]

[Total Marks : 100

Note : *Attempt all questions.*

1 Attempt any four parts : 5×4=20

- (a) Classify bricks of various categories.
- (b) What do you mean by seasoning of timber ?
What are its advantages ?
- (c) What are the forces responsible for causing natural defects in timber ?
- (d) What are the characteristics of good building stones ?
- (e) Explain properties of gypsum.
- (f) How is mortar classified on the basis of bulk density ?

2 Attempt any four parts : 5×4=20

- (a) Classify plastics and give their advantages.
- (b) Explain the mechanical properties of plastics and their use in construction.

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[Contd...

- (c) Explain the properties of common constituents of paint, varnish and distempers. <http://www.uptuonline.com>
- (d) Explain the characteristics of reinforcing steel.
- (e) Describe use of glass in construction work.
- (f) Describe desirable properties of thermal and sound insulating materials.

3 Attempt any **two** parts : **10×2=20**

- (a) (i) Describe the classification of different types of buildings as per national building code (NBC)
- (ii) What does the term "principles of planning of building" signify ? How would you select the site for building construction ?
- (b) What are the different types of upper and ground floors ? Describe them briefly.
- (c) (i) Explain various causes of dampness of buildings.
- (ii) Explain how pre construction and post construction anti termite treatment is carried out.

4 Attempt any **two** parts : **10×2=20**

- (a) Compare wooden and steel doors. Draw detail of each type and discuss how the size of doors and windows are fixed.
- (b) Define various types of lintels and discuss their various uses.
- (c) Describe the term "functional efficiency of building".

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[Contd...

5 Attempt any **two** parts :

10×2=20

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- (a) Write down general rules for natural ventilation.
Explain in brief various systems of mechanical ventilation.
- (b) Write short notes on :
 - (i) Mechanical lifts and escalators
 - (ii) Fire fighting
 - (iii) Acoustics
- (c) Explain the terms plastering, painting and distempering along with their advantages.