

TCE-302

9

Printed Pages : 5

Paper Code & Roll No. to be filled in your Answer Book

Roll No.

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Odd Semester Examination-2016

B.Tech (Semester - III)**BUILDING MATERIAL & CONSTRUCTION**

[Time : 3 Hours]

[Maximum Marks : 100]

Note : Attempt **all** questions.1. Attempt **any four** questions : [5x4=20]

(a) Short questions :

- (i) Write the function of frog in brick.
- (ii) Give the standard and nominal size of brick.
- (iii) Explain purpose of providing cavity wall.
- (iv) Explain the difference between pitched roof & flat roof.
- (v) Enumerate various defects in plastering.

(b) Give point wise comparison between stone masonry & brick masonry.

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(1)

[P.T.O.]

- (c) Discuss the requirements of good quality bricks.
- (d) Draw a neat sketch of one brick thick English Bond & describe characteristics of English Bond.
- (e) Discuss different types of ferrous metals.
- (f) Write the factors affecting strength of timbers.

2. Attempt **any two** questions : [10x2=20]

- (a) Write classification of lime and explain in detail.
- (b) Write functions of following building components:
 - (i) Weather shed/Chajja
 - (ii) Lintel
 - (iii) Plinth
 - (iv) Stair
 - (v) Foundation
 - (vi) Beam
 - (vii) Slab
 - (viii) Column

(ix) Floor

(x) Ventilation

(c) Write a short note on :

(i) Pointing

(ii) Plastering

3. Attempt any two questions : [10x2=20]

(a) What is the need of temporary works? Enlist types of scaffoldings and explain any one in detail with sketch.

(b) Explain classification of windows and discuss them with neat sketch.

(c) Enlist different principles of planning and explain any five in detail.

4. Attempt any two questions : [10x2=20]

(a) (i) Draw the sketch of stairs

- Helical stair

- Spiral stair

- Half turn geometrical stair
- Three quarter turn stair
- Bifurcated stair

(ii) Define the following :

- Flight
- Landing
- Nosing
- Newel
- Winders

(b) Write a short note on :

(i) Ashlar masonry

(ii) Rubble masonry

(c) What are the common constituents of oil paint and explain in detail what purpose they serve?

5. Attempt any two questions : [10x2=20]

(a) What do you mean by insulation and define the term thermal and sound insulation. Write the name of insulating material used for thermal and sound insulation.

- (b) Write down general rules for natural ventilation. Explain in brief various system of mechanical ventilation.
- (c) What are the various causes of dampness in building? What are the ill effects of dampness?

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