

B.TECH
(SEM IV) THEORY EXAMINATION 2022-23
MATERIAL TESTING AND CONSTRUCTION PRACTICES

Time: 3 Hours**Total Marks: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 10 = 20

- (a) What do you understand by the term efflorescence in bricks?
- (b) What is seasoning of Timber?
- (c) What are elastomers?
- (d) What is varnish?
- (e) Explain the term Header and Stretcher.
- (f) Explain the term Tread and Riser.
- (g) What is Accoustics?
- (h) Differentiate between Plastering and Pointing?
- (i) Differentiate between Corrosion and Rusting?
- (j) What do you understand by the term Stack Effect?

SECTION B

2. Attempt any three of the following: 10x3=30

- (a) Explain the factors governing the choice of Building Material.
- (b) Explain the various constituents of paint.
- (c) Draw a neat sketch of a staircase showing the various components. Briefly explain the various types of staircases.
- (d) Explain how pre-construction anti termite treatment is carried out in a building
- (e) Explain the various measures taken for limiting the spread of fire in a building.

SECTION C

3. Attempt any one part of the following: 10x1=10

- (a) What do you understand by the term workability of concrete? Explain the slump method for determining the workability of concrete.
- (b) Explain the various tests that need to be performed to ensure the suitability of calcined clay bricks.

4. Attempt any one part of the following: 10x1=10

- (a) Discuss the various types and uses of plastics in the construction industry.
- (b) Explain the properties and uses of glass as a construction material.

5. Attempt any *one* part of the following:

10x1=10

- (a) What is meant by Bonds in Brick Work? Explain the various types of bonds used in brick masonry.
- (b) What are the various ill effects of dampness? Discuss the various methods of damp proofing.

6. Attempt any *one* part of the following:

10x1=10

- (a) Explain with neat sketches any five types doors commonly used in modern buildings.
- (b) Discuss the various principle of planning the building.

7. Attempt any *one* part of the following:

10x1=10

- (a) Explain the different types of maintenance that needs to be done in a building.
- (b) Illustrate the importance of Building Services.

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