

B TECH
(SEM III) THEORY EXAMINATION 2018-19
BUILDING MATERIALS & CONSTRUCTION

Time: 3 Hours

Total Marks: 100

Notes: Assume any Missing Data. Attempt all questions.

1. Attempt any four parts-

(5*4= 20)

- a. Briefly describe the following test on stones: (a) crushing strength test (b) water absorption test
- b. State the properties of a good timber. Write a note on defects in timber.
- c. What are vogue compounds? Explain their role in setting and hardening process of Portland cement.
- d. How are trees classified? Distinguish between soft wood and hard wood.
- e. Write the short notes on each below-
 - i. Asphalt
 - ii. Bitumen
 - iii. Tar

2. Attempt any four parts-

(5*4= 20)

- a. Write short notes on following-
 - i. TMT bars
 - ii. High carbon steel
- b. Describe various types of paints.
- c. What are two main divisions of plastics? What are their essential characteristics?
- d. Describe the various applications of glass as a building material.
- e. Plot the stress-strain curve for mild steel. Explain all the points in this curve.

3. Attempt any two parts-

(10*2= 20)

- a. What is called a floor area ratio? Distinguish between a substructure and superstructure.
- b. Draw a neat sketch of a typical staircase and show its different features.
- c. Explain terrazzo flooring. Explain the construction for the same.

4. Attempt any two parts-

(10*2= 20)

- a. Write short note on following-
 - i. Sliding door
 - ii. Revolving door
 - iii. Collapsible shutter
 - iv. Rolling shutter
- b. Describe various types of windows.
- c. What do you mean by lintel? How weatherproofing of flat roof is done?

5. Attempt any two parts-

(10*2= 20)

- a.** What is the difference between a lift and an escalator? What are various systems of Air Conditioning?
- b.** Explain the following terms-
 - i. Plastering and pointing
 - ii. Acoustics
 - iii. HVAC
- c.** What are properties of distemper? Briefly discuss the process of distempering. Discuss various types of ventilation in a building.