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B. Tech.
(SEM IV) THEORY EXAMINATION 2017-18
BUILDING MATERIAL CONSTRUCTION

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. Mention the different tests performed on cement.
- b. Give a brief classification of lime.
- c. Write down the use of plastic material in construction.
- d. What are the desirable characteristics of reinforcing steel?
- e. What is damp proofing?
- f. Write down the types of stair cases.
- g. Discuss the advantages of window.
- h. Why do we need to provide lintel over a door or window?
- i. Discuss the methods of building maintenance.
- j. Write down the importance of fire protection of buildings.

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30

- a. Enumerate the characteristics to be considered for selection of stones for various construction works.
- b. Write and discuss the types of glass used in ordinary buildings.
- c. Describe the various components of a building.
- d. Write down the types of doors and windows.
- e. Write short note on-
 - 1) Rainwater drainage
 - 2) Sewerage disposal
 - 3) Internal water supply
 - 4) Ventilation
 - 5) Color washing

SECTION C

3. Attempt any *one* part of the following: 10 x 1 = 10

- (a) Describe in detail the two tests you will prescribe to estimate the tension strength of concrete.
- (b) What are the causes of deterioration of woodwork in a building? How can you rectify them and also prevent them?

4. Attempt any *one* part of the following: 10 x 1 = 10

- (a) What are the different types of paints used in building construction?
- (b) What are the different types of heat treatment of steel and their uses?

- 5. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) What are differences in the requirements of floor tiles and wall tiles? In what places would you consider tiling the walls?
 - (b) What are the advantages and disadvantages of cavity wall and hollow block construction?
- 6. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Write down the principles of building planning. Also discuss the advantages of lintel arrangement in a building.
 - (b) Describe the various types of roof and types of roof treatment.
- 7. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Explain the various sanitary fittings with neat sketch diagram.
 - (b) Distinguish between mortar and plaster. What are the differences in the preparation of cement mortar and cement plaster?