

Paper Code: CE-302

Roll No.

B. TECH
(SEM III) ODD SEMESTER EXAMINATION 2016-17
BUILDING MATERIALS AND CONSTRUCTION

[Time: 3 Hrs.]

[Max. Marks: 100]

Note: Attempt all Questions. All Question carry equal marks

1. Attempt any **FOUR** questions from the following:- **(5X4 =20)**
- a. What is the requirement of good stones for building construction? List and explain at least two tests which are performed on stones.
 - b. Differentiate in between Hydraulic lime and Fat lime?
 - c. Explain the process of manufacturing bricks. And also explain how silica, aluminum, and lime affect the property of bricks.
 - d. Explain the structure of exogenous timber with the help of neat sketch? How exogenous wood is different from endogenous wood. Also give example of both.
 - e. Differentiate in between bitumen and tar. List various test performed on Bitumen and explain any two.
 - f. Write short note on:
 - i. Soundness of cement
 - ii. Consistency of cement
2. Attempt any **TWO** questions from the following:- **(10 X 2=20)**
- a. What do you understand by thermal insulating material? Discuss various advantages and disadvantages of using thermal insulating material in building construction work?
 - b. What are the mechanical and physical properties of Plastics
 - c. Discuss the role of various ingredients of paints. And also describe the various types of paints, and their suitability or use.
3. Attempt any **TWO** questions from the following:- **(10 X 2=20)**
- a. What do you understand by the term “Damp proofing”? Describe the method of Damp-proofing for the following
 - i. Foundations
 - ii. Floors.
 - b. What do you understand by vertical circulation, also list different types of stairs and explain them? And explain the following term with the help of neat sketches
 - i. Landing
 - ii. Noising
 - iii. Balustrade
 - iv. Stringer
 - v. Newel
 - c. Write short notes on i) Header bond ii) Stretcher bond. And differentiate and compare English, Flemish and Double Flemish bond.

4. Attempt any **TWO** questions from the following:-

(10 X 2=20)

- a. Differentiate in between the following with the help of neat sketches:
 - i. Fixed and Pivoted window
 - ii. Sky light and Dormer window
- b. Discuss the importance of different type of doors used in building construction work. With the help of neat sketches describe the following:
 - i. Louvered doors
 - ii. Battened, ledged, braced and framed doors.
- c. What do you understand by component of building? Discuss different components of building and their use

5. Attempt any **TWO** questions from the following:-

(10 X 2=20)

- a. Differentiate in between pointing and plastering. Explain the method of pointing, and also describe various types of pointing.
- b. i) What do you understand by Reverberation and Reverberation time? How do you determine reverberation time?
ii) Enumerate various requirement of good acoustic material
- c. Write short notes on
 - i. Distempers
 - ii. White washing
 - iii. Colour washing
 - iv. Varnish