

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2023

B.Tech-III Semester (CE)

COURSE CODE (CREDITS): 18B11CE313 (3)

MAX. MARKS: 35

COURSE NAME: BUILDING MATERIALS AND CONSTRUCTION

COURSE INSTRUCTORS: AKASH BHARDWAJ

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

- Q1. (a) What are the primary components of cement, and how do they contribute to its properties? (2 marks) [CO 1]
(b) What are the key differences between paint, varnish, and whitewash in terms of their composition and application? (3 marks) [CO 4]
(c) Explain the factors on which removal of formwork depends. (3 marks) [CO 4]
- Q2. (a) Explain various types of fire. What are various types of fire extinguishers? Explain any one of them. (3 marks) [CO 4]
(b) Explain Winders and Quarter turn stair. Draw plan for Open newel stair. (4 marks) [CO 3]
- Q3. (a) Define Raker in scaffolding. Write short notes on Trestle scaffolding. (3 marks) [CO 4]
(b) Draw Tothing in brick masonry. Explain Rubble masonry. (3 marks) [CO 2]
- Q4. (a) Explain how unequal settlement of soil plays an important role in failure of foundations. (2 marks) [CO 2]
(b) Draw plan and elevation for Trapezoidal combined footing for columns. Differentiate the buildings based on their occupancy and explain any one. (4 marks) [CO 1,2]
- Q5. (a) Draw the flow chart showing plywood manufacturing process. (3 marks) [CO 1,3]
(b) Explain the difference between manual mixing and mill mixing of mortar. (3 marks) [CO 2]
(c) Explain concrete and how it's important for damp proofing in building. (2 marks) [CO 3]
