

# Jharkhand University of Technology, Ranchi

## Diploma 2nd Semester Examination, 2024 (NEP)

Subject : Construction Material

Subject Code : CIV-201

Time Allowed : 3 Hours

Full Marks : 70

*Answer in your own word.*

*Answer any five questions.*

*Question 1 is compulsory, and from rest of the questions answer any four only.*

*All questions carry equal marks.*

I. Write correct answer of the following questions:

2×7=14

- (i) Strength of good building stone
- (a) less than 50 N/mm<sup>2</sup>. (b) greater than 100 N/mm<sup>2</sup>.  
(c) more than 200 N/mm<sup>2</sup>. (d) more than 400 N/mm<sup>2</sup>.
- (ii) The percentage absorption by weight of a good stone are kept in water is
- (a) less than 6 hrs. (b) greater than 15 hrs.  
(c) more than 25 hrs. (d) equal to 24 hrs.
- (iii) Who invented Portland cement and in which year?
- (a) William Aspdin, 1824 (b) William Aspdin, 1820  
(c) William Jone, 1800 (d) William Aspdin, 1827
- (iv) Which are the field test performed on cement?
- (a) It should feel hot hand in bag of cement. (b) The colour should be blue grey.  
(c) There should not be any lumps. (d) There should be lumps.
- (v) Objective of the Seasoning of timber is \_\_\_\_\_.
- (a) Burning timber (b) Adding preservatives  
(c) Removing moisture (d) There should be lumps
- (vi) Paint should provide resistance to
- (a) Corrosion (b) Sound  
(c) Heat (d) Water
- (vii) Second name of Quarry tile—
- (a) Unglazed ceramic tile (b) Stone tile  
(c) Workshop tiles (d) Granite tile

2. (a) Explain properties and uses of Geo polymer cement.  
(b) Distinguish between Paints and Distempers.
  3. (a) Explain the role of constituents and uses of POP (Plaster of Paris).  
(b) What are the properties of good paint?
  4. (a) Manufacturing process of burnt clay brick.  
(b) Explain Field tests on bricks.
  5. (a) List out various defects in timber with neat sketch.  
(b) Explain the types of glass.
  6. (a) Explain the constituents and characteristics of bricks.  
(b) Write the properties and uses of pavement blocks.
  7. Write *any four* short notes:
    - (a) Good building stone
    - (b) Preservation of timber
    - (c) Modular and Standard bricks
    - (d) Hoffmann's kiln
    - (e) Types of cement
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