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**END SEMESTER (REGULAR/RETEST)  
EXAMINATION, NOVEMBER/DECEMBER – 2024**

Semester : 3rd

Branch : Civil Engineering

Subject Code : Cv-302

**BUILDING CONSTRUCTION AND  
MATERIALS**

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

**Instructions :**

- (i) Question Nos. 1, 2, 3 and 11 are compulsory.
- (ii) Answer any *five* questions from Question Nos. 4 to 10.

1. Fill in the blanks :  $1 \times 5 = 5$

- (a) Granite is an example of \_\_\_\_\_ rock.
- (b) Dry rot is a defect in \_\_\_\_\_.
- (c) Crushing strength of Class-AA brick is \_\_\_\_\_.

[Turn over

(d) Efflorescence test is generally done on \_\_\_\_\_.

(e) Grading limits of aggregates are specified in IS : \_\_\_\_\_.

2. Write True or False :  $1 \times 5 = 5$

- (a) Cavity wall is formed from two thicknesses of brickwork or blockwork with a space.
- (b) Good sand should be chemically inert.
- (c) DPC are used for sound proofing.
- (d) PVC are rust-proof and rot-proof.
- (e) The diameter of Vicat plunger used for consistency test is 12mm.

3. Choose the correct answers :  $1 \times 5 = 5$

- (a) Fineness of Ordinary Portland Cement should not be more than
  - (i) 10%
  - (ii) 25%
  - (iii) 8%
  - (iv) 12%
- (b) Two coats painting means \_\_\_\_\_ separate coat/coats of paint applied in succession.
  - (i) one
  - (ii) three
  - (iii) two
  - (iv) None of these

(c) Carbon content in cast iron varies from

- (i) 2% and 4.5%
- (ii) 20% and 45%
- (iii) 2% and 45%
- (iv) None of the above

(d) Characteristic of good varnish is, it dries

- (i) quickly
- (ii) slowly
- (iii) All of the above

(e) Seasoning of stones are done

- (i) to remove moisture
- (ii) to remove quarry sap
- (iii) None of the above
- (iv) Both (i) and (ii)

4. (a) What is frog in bricks ?  $2 \times 5 = 10$

(b) Write the compositions of good brick earth.

(c) Describe in brief the different operations involved in manufacturing of brick.  $5 \times 5 = 25$

5. (a) State the advantages and disadvantages of stone masonry. 3

(b) Define the different types of rock forming minerals. 3

(c) Write the different tests done to select good stone for building construction. 3

6. (a) What is seasoning of timber ? 2

(b) Describe the different types of defects in timber. 4

(c) Explain briefly about any one method of seasoning of timber. 3

7. (a) What is paint ? 2

(b) Describe in brief the different types of foundations. 5

(c) Differentiate between shallow and deep foundations. 2

8. (a) Distinguish clearly between Stone masonry and Brick masonry. 2

(b) Write the name of damp proofing materials commonly used. 3

(c) Write the advantages of Damp Proof Course. 4

9. (a) What is Mortar ? What is PVC ?  $2+1=3$

(b) Name some fixtures and fastenings for doors and windows. 6

10. (a) Write the different properties of Class-A brick. 3

(b) Write the objects of plastering and pointing on brick surface. 4

(c) Name some timber-based products. 2

11. Write short notes on any four :  $2.5 \times 4 = 10$

(a) Composite masonry

(b) Different types of ground floor

(c) Pointing

(d) Bonding agents

(e) Uses of varnishing.