



c20-c-305

7228

**BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2023
DCE - THIRD SEMESTER EXAMINATION
CONSTRUCTION MATERIALS**

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. State any three purposes of dressing the stone.
2. List any three uses of refractory bricks.
3. List any three characteristics of good tile.
4. State any six types of cement.
5. State the uses of cement mortar.
6. Name any three methods of curing of concrete.
7. State the functions of paints.
8. State the advantages of plastics.
9. State any three uses of asbestos.
10. State any three uses of seasoning of timber.

PART—B

8×5=40

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. (a) Explain the physical classification of stones.

(OR)

(b) Explain any eight characteristics of good building stone.

12. (a) Describe water absorption test conducted on bricks.

(OR)

(b) Explain any eight characteristics of good bricks.

13. (a) List the uses of (i) porcelain tiles and (ii) glazed tiles.

(OR)

(b) Define bulking of sand and briefly explain the bulking allowance for construction work.

14. (a) State the various ingredients along with their properties in ordinary portland cement.

(OR)

(b) Describe the method of testing initial setting time of cement.

15. (a) Explain the slump test conducted on fresh cement concrete.

(OR)

(b) Describe the method of production of ready mix concrete and state any four advantages of RMC.

PART—C

10×1=10

- Instructions :**
- (1) Answer the following question.
 - (2) The question carries **ten** marks.
 - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Write a short note on the following :

- | | |
|-------------------------------|---|
| (a) Fibre reinforced concrete | 3 |
| (b) Light weight concrete | 3 |
| (c) Self compacting concrete | 4 |

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