



C14-C-305

4224

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DCE - III 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) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 State the physical classification of rocks with one example for each. $3 \times \frac{1}{2} + 3 \times \frac{1}{2}$
- 2 Mention any three uses of refractory bricks. 3×1
- 3 State any three characteristics of good tiles. 3×1
- 4 Write short notes on : (a) porcelain tiles, $1 \frac{1}{2} + 1 \frac{1}{2}$
(b) Stone ware pipes.
- 5 State the chemical composition of Portland cement. 3
- 6 Define the term mortar and list different types of mortar. $1 + \frac{1}{2} \times 4$
- 7 Explain the terms : (a) Workability (b) Hydration of cement. $1 \frac{1}{2} + 1 \frac{1}{2}$
- 8 State any six uses of paints. $6 \times \frac{1}{2} = 3$
- 9 List any six methods of seasoning of timber. $6 \times \frac{1}{2} = 3$
- 10 Write short notes on : (a) Plywood, (b) Eco board. $1 \frac{1}{2} + 1 \frac{1}{2}$

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[Contd...

PART - B**10×5=50**

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

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|-----------|--|------------------------|
| 11 | Explain any ten characteristics of good building stones. | 10 |
| 12 | Describe in detail about the following tests conducted on bricks.
(a) Compressive strength
(b) Efflorescence | 5+5 |
| 13 | List and explain various types of tiles. | 1+9 |
| 14 | Explain the method of manufacturing of cement by dry process with flow diagram. | 7+3 |
| 15 | Describe the method of preparing cement mortar by
(a) Hand mixing
(b) Machine mixing | 5+5 |
| 16 | (a) What is water-cement ratio and list any four factors affecting water cement ratio.
(b) Write any five advantages of ready mix concrete. | 1+4
5 |
| 17 | Explain about :
(a) French polish
(b) Enamel paints | 5+5 |
| 18 | (a) Describe the method of kiln seasoning of timber.
(b) Mention the types of varnishes and their uses. | 5
2+3 |