

7228

BOARD DIPLOMA EXAMINATION, (C-20) JUNE/JULY—2022

DCE - THIRD SEMESTER EXAMINATION

CONSTRUCTION MATERIALS

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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 physical classification of rocks with one example for each.
- 2. List any three characteristics of good bricks.
- 3. State three functions of sand.
- 4. List any three tests on cement.
- 5. What is mortar? State any two types of mortars.
- 6. State any three advantages of machine mixing of concrete.
- 7. State any three uses of varnishes.
- 8. State six constituents of paint.
- 9. State any three characteristics of good timber.
- 10. Write any three advantages of plastics.

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PART—B 8×5=40

Instructions: (1) Answer all questions.

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- (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 any eight characteristics of good building stones.

(OR)

- (b) Explain four properties and four uses of granite.
- 12. (a) Explain different stages involved in preparation of bricks.

(OR)

- (b) Explain water absorption and compressive strength tests on bricks.
- 13. (a) State characteristics of good sand.

(OR)

- (b) State and explain classification of sand based on availability.
- 14. (a) Explain consistency test on cement.

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(OR)

- (b) Draw legibly a labeled flow diagram of manufacturing of cement by dry process.
- 15. (a) Explain any three methods of curing of concrete suitable for different surfaces.

(OR)

(b) Explain the preparation of cement concrete by machine mixing.

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PART—C $10 \times 1 = 10$

Instructions: (1) Answer the following question.

- (2) The question carries ten marks.
- (3) Answer should be comprehensive and criterion for valuation is the content but not the length of the answer.
- 16. Explain ready mix concrete and state its advantages.



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