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C20-C-305

7228

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

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 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.
(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.

(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

10×1=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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