# 7228

# **BOARD DIPLOMA EXAMINATION, (C-20)**

## **NOVEMBER/DECEMBER—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 the physical classification of rocks.
- **2.** List three characteristics of good bricks.
- **3.** List three uses of porcelain tiles.
- **4.** State three grades of cement and their compressive strengths.
- **5.** List the ingredients of RCC.
- **6.** State the importance of water cement ratio in three sentences.
- **7.** Write the composition of paints.
- **8.** State any three uses of paints.
- **9.** Define seasoning of timber.
- **10.** List two merits and demerits of glass.

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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) State any eight characteristics of good building stones.

(OR)

- (b) List any four properties and four uses of granite.
- **12.** (a) Explain the procedure and significance of water absorption test on bricks.

(OR)

- (b) Explain any four uses of (i) refractory bricks and (ii) fly ash bricks.
- **13.** (a) State any eight characteristics of good tiles.

(OR)

- (b) Explain bulking of sand and state the percentage of bulkage allowance for construction work.
- **14.** (a) Explain soundness test on cements.

(OR)

- (b) List four uses of ordinary Portland cement and white cement.
- **15.** (a) Explain the method of preparation of cement concrete.

(OR)

(b) Explain about ready mix concrete and state its two advantages and disadvantages.

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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 the criterion for valuation is the content but not the length of the answer.
- **16.** Explain the procedure of conducting compressive strength test on concrete.

