

3222

BOARD DIPLOMA EXAMINATION, (C-09) MARCH/APRIL—2017 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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.
- 1. State the difference between stratified rocks and foliated rocks.
- **2.** State the use of refractory bricks. Mention the main varieties of refractory bricks.
- 3. Define bulking of sand.
- **4.** State any four uses of cement.
- **5.** Describe the preparation of cement mortar.
- **6.** Define 'mortar'. How are mortars classified?
- 7. List the uses of varnish.
- **8.** State three uses of enamel.
- **9.** State any three characteristics of good timber.
- **10.** What is geosynthetics? Mention the types of geosynthetics.

Instructions: (1) Answer any five questions.

- (2) Each question carries ten marks.
- (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- 11. List any six properties and four uses of granite stone.
- **12.** Explain 'water-absorption test' and 'compressive strength test' on bricks.
- 13. Explain briefly about the following wall tiles:
 - (a) Ceramic tiles
 - (b) Vitrified tiles
- **14.** State the importance and the application of Portland puzzolano cement.
- **15.** Explain the procedure of mixing, conveyance, placing, compacting and curing of concrete.
- **16.** List the types and uses of admixtures used in concrete.
- **17.** (a) State and explain the ingredients of a paint.
 - (b) Write the uses of paint.
- 18. What is 'plywood'? List the uses of plywood.

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