

3222

BOARD DIPLOMA EXAMINATION, (C-09) APRIL/MAY-2015 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 any three characteristics of good building stone.
- **2.** Write a short note on stoneware pipes.
- **3.** State different substitute materials for sand.
- **4.** State any four uses of cement.
- **5.** State the usual proportions of cement mortar for any three civil engineering works.
- **6.** State the ingredients of concrete and give their functions.
- **7.** Explain the functions of any three ingredients of paints.
- **8.** What are the ingredients of varnish?
- **9.** Name the common varieties of timber used in AP for civil engineering works.
- **10.** What is geo-synthetics Mention the types of geo-synthetics.

 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 briefly the characteristics of a good brick.
- 13. Explain briefly about the following masonry wall construction:
 - (a) Hollow concrete bricks
 - (b) Solid concrete blocks
 - (c) High-quality building blocks
- **14.** Briefly explain about the following tests:
 - (a) Normal consistency of cement
 - (b) Initial setting time of cement
 - (c) Final setting time of cement
- 15. Explain ready mix concrete. Write any four advantages of it.
- **16.** Explain briefly about the placing and conveyance of concrete.
- **17.** State the properties and the uses of the following :
 - (a) Enamel paints
 - (b) Water paints
- **18.** What is 'plywood'? List the uses of plywood.

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