



c09-c-306

**3222**

**BOARD DIPLOMA EXAMINATION, (C-09)**

**APRIL/MAY—2015**

**DCE—THIRD SEMESTER EXAMINATION**

**CONSTRUCTION MATERIALS**

*Time* : 3 hours ]

[ *Total Marks* : 80

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**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 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.

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**PART—B**

10×5=50

- 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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