



c09-c-306

3222

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2018

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 any three characteristics of good building stone.
2. State the use of refractory bricks. Mention the main varieties of refractory bricks.
3. State any four characteristics of good sand.
4. State six different types of cement.
5. State the difference between plain cement concrete and reinforced cement concrete.
6. Write a short note on shotcrete concrete.
7. What are the ingredients of varnish?
8. State three uses of enamel.
9. Name the common varieties of timber used in AP for civil engineering works.
10. State three uses of eco-boards.

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[*Contd...*

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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.** (a) State any four tests on common building bricks as per IS : 3495-1966.
(b) Explain in detail the compressive strength test on bricks.
- 13.** Explain about Mangalore tiles with advantages.
- 14.** Explain briefly about blended cement and mention the types of blended cement.
- 15.** Explain briefly the placing and compaction of concrete.
- 16.** Explain briefly about the following with uses :
(a) Plasticizers
(b) Superplasticizers
(c) Air entraining agents
(d) Accelerators
(e) Retarders
- 17.** (a) State and explain the ingredients of a paint.
(b) Write the uses of paints.
- 18.** Explain briefly about the following with uses :
(a) Geotextiles
(b) Geogrids
(c) Geomembranes
(d) Geocomposites
