

C14-C-305

4229

BOARD DIPLOMA EXAMINATION, (C-14) OCT/NOV-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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.
- **1.** Define 'dressing of stones' and state its necessity.
- **2.** What is the size of modular brick? List various operations involved in the process of bricks.
- **3.** Write a short note on stone ware pipes.
- **4.** What is bulking of sand?
- **5.** State any six classification of cement.
- **6.** Differentiate find aggregate and course aggregate.

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- **7.** Define the following:
 - (a) Water cement ratio
 - (b) Hydration of cement
- **8.** What are the ingredients of varnish?
- **9.** Name the common varieties of timber used in AP for Civil engineering works.
- 10. State any six advantages of plastics.

PART—B

 $10 \times 5 = 50$

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. State and explain ten characteristics of a good building stone.
- **12.** Write about refractory bricks and state any six properties and used of refractory bricks.
- **13.** Answer the following questions:
 - (a) State any five characteristics of good tiles.
 - (b) Explain briefly about Mangalore tiles with advantages
- **14.** State the importance and the application of flyash cement and slag based cement.
- 15. Explain ready mix concrete. Write any four advantages of it.

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- **16.** Explain the procedure of conducting the following tests on concrete:
 - (a) Slump test
 - (b) Compressive strength
- 17. (a) State and explain the ingredients of paint.
 - (b) Write the uses of paint.
- 18. Explain briefly about the following:
 - (a) Laminated board
 - (b) Straw board
 - (c) ECO board

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