

**3222**  
**BOARD DIPLOMA EXAMINATION, (C-09)**  
**MARCH/APRIL - 2019**  
**\* DIPLOMA IN CIVIL ENGINEERING**  
**CONSTRUCTION MATERIALS**  
**THIRD SEMESTER EXAMINATION**

**Time: 3 Hours**

**Total Marks: 80**

**PART - A (10 x 3 = 30 Marks)**

*Note 1: Answer all questions and each question carries 3 marks*

*2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences*

1. State physical classification of rocks and also give an example for each.
2. State the use of refractory bricks. Mention the main varieties of refractory bricks.
3. What is "Bulking of sand"
4. State any three tests for O.P.C. Give standard values for the respective tests.
5. Write a short note on Shotcrete Concrete.
6. State the difference between plain cement concrete and reinforced cement concrete.
7. List the uses of varnish.
8. State three uses of Enamel.
9. State three uses of Eco-Boards.
10. What is gypsum ? What are the types of gypsum

**PART - B (5 x 10 = 50 Marks)**

*Note 1: Answer any five questions and each question carries 10 marks*

*2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer*

11. Explain briefly the characteristics of good building stone.
12. a) Explain the procedure to be followed for water absorption test on bricks.  
b) State any four characteristics of good bricks.
- \* 13. Write the uses of the following tiles.  
a) Porcelain tiles b) glazed tiles c) floor tiles
14. Describe the method of manufacturing of cement by dry process method.
15. Explain briefly about the following with uses.
  - a) Plasticizers
  - b) Super plasticizers
  - c) Air entraining Agents
  - d) Accelerators.
  - e) Retarders
16. Explain the procedure of mixing, conveyance, placing, compacting and curing of concrete.
17. a) State and explain ingredients of a paints.  
b) Write any five uses of paint.

18. a) Define 'seasoning of timber'. State four objectives of seasoning of timber.  
b) State any five characteristics of good timber.

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