

95 FEB 2023

Reg. No.

Question Paper Code

11718

**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022**

Third Semester

**Civil Engineering**

**20CEPC304 - CONSTRUCTION MATERIALS, EQUIPMENT AND PRACTICES**

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

- |  | <i>Marks,<br/>K-Level, CO</i> |
|--|-------------------------------|
| 1. What is meant by dressing of stones?                                    | 2,K1,CO1                      |
| 2. Show the standard size of brick used for construction with neat sketch. | 2,K2,CO1                      |
| 3. Outline what is meant by hydration of cement.                           | 2,K2,CO2                      |
| 4. Define Elongation index.  | 2,K1,CO2                      |
| 5. List the various types of special concrete.                             | 2,K1,CO3                      |
| 6. Classify the factors influencing the choice of mix design.              | 2,K1,CO4                      |
| 7. Outline the seasoning in timber.  | 2,K2,CO5                      |
| 8. Define the term Refractories.   | 2,K1,CO5                      |
| 9. What are slipforms?   | 2,K1,CO6                      |
| 10. Define plastering and list the grades of mortar used for plastering.   | 2,K1,CO6                      |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

11. a) Explain with a flow chart showing the steps involved in the preparation of bricks. 13,K2,CO1
- OR**
- b) Explain briefly on the defects and preservation of stones. 13,K2,CO1
12. a) Explain the manufacturing process of cement in detail with a flow chart. 13,K2,CO2
- OR**
- b) Explain the following 6,K2,CO2
- (i) Impact test on coarse aggregate 7,K2,CO2
- (ii) Crushing strength test on coarse aggregate

*K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create*

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13. a) Explain the manufacturing process of concrete in detail. 13,K2,CO3

OR

b) Illustrate the tests on fresh concrete. 13,K2,CO3

14. a) Summarize the process of manufacturing of Glass? What are the Uses of glass in construction industry? 13,K2,CO5

OR

b) Explain the Bessemer process of manufacture of steel. 13,K2,CO5

15. a) Explain about Building Foundations in detail. 13,K2,CO6

OR

b) Summarize the construction methodology of RCC cooling tower using slipform techniques. 13,K2,CO6

**PART - C (1 × 15 = 15 Marks)**

16. a) (i) Outline the objectives of mix design. 7,K2,CO4

(ii) Explain the considerations for concrete mix design. 8,K2,CO4

OR

b) Classify the methods of concrete mix design and explain the BIS method of concrete mix design 15,K3,CO4