

**I B. TECH II SEMESTER REGULAR EXAMINATIONS, SEPTEMBER - 2021
BUILDING MATERIALS AND CONSTRUCTION****(Civil Engineering)****Time : 3 Hours****Max. Marks : 70****Note : Answer ONE question from each unit (5 × 14 = 70 Marks)**
~~~~~**UNIT-I**

1. a) Explain about the dressing of stones? Explain how stone work is preserved? [5M]  
b) Describe the classifications, properties and uses of three important types of stones employed in civil engineering work. [9M]

**(OR)**

2. a) Discuss main constituents of a good quality brick. What are the harmful ingredients in brick earth and explain them. [8M]  
b) Write short notes on the process of burning of bricks in Intermittent kilns with neat sketch. [6M]

**UNIT-II**

3. a) Discuss briefly about various methods of manufacturing of Tiles? [6M]  
b) What are the differences between wrought iron and steel? Explain various factors affecting physical properties of steel. [8M]

**(OR)**

4. a) Explain manufacturing process of glass using tank furnace method. [7M]  
b) Explain different types of defects in timber. What should be the qualities for good timber ? [7M]

**UNIT-III**

5. a) Discuss different types of lime used in civil engineering applications. [6M]  
b) List out the field tests to be carried out on cement. Explain about consistency test of cement. [8M]

**(OR)**

6. a) What are the ingredients of ordinary cement? State the effect of each ingredient. [6M]  
b) Describe briefly, with applications, (i) high early strength cement, (ii) low alkali cement, and (iii) rapid hardening cement (iv) quick setting cement. [8M]

**UNIT-IV**

7. a) What are the functions of Arches and lintels? Give relative merits and demerits of lintels over arches. [8M]  
b) Explain with neat sketches about Lean to roof [6M]

(OR)

8. a) What qualities you would look for a good building stone in masonry work? [8M]  
differentiate between Rubble masonry and Ashlar masonry.
- b) Differentiate between cavity walls and partition walls. [6M]

UNIT-V

9. a) Discuss the various types of varnishes. [7M]
- b) Discuss the various types of paints used in construction. [7M]

(OR)

10. a) What is distempering and Colour washing ? Give reasons why distempering [7M]  
is preferred to colour washing?
- b) What is meant by a ventilator and mention its requirements. [7M]

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