

Roll No. ....

Total No. of Pages : 2

Total No. of Questions : 09

**B.Tech (CE) (Sem.-3)**  
**BUILDING MATERIALS**  
**Subject Code : CE-205**  
**Paper ID : [A0603]**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY.
2. Attempt any FOUR questions from SECTION-B.
3. Attempt any TWO questions from SECTION-C.

**SECTION-A (10 × 2 = 20 Marks)**

1. (a) The direction of natural bed should be perpendicular to the direction of pressure.  
(b) Why are the moulds of bricks made longer by about 8 to 12 percent in all directions?  
(c) The top layer of soil, about 20 cm in depth, is to be rejected for the purpose of preparing bricks. Explain.  
(d) Is there any wastage of time in intermittent kilns? Why?  
(e) The continuous flame kiln is widened in the middle portion. Why?  
(f) Why is gypsum added to cement?  
(g) Can sea water be used in making concrete?  
(h) The dry sand and the sand completely flooded with water have practically the same volume. Why?  
(i) Why the felling of trees in autumn and spring should be avoided?  
(j) What are the different types of paints?

**SECTION-B (4 × 5 = 20 Marks)**

2. How are rocks physically and chemically classified?

3. What is meant by artificial hydraulic lime? How is it manufactured?
4. How does cement set? What are the functions of four principle minerals?
5. What is meant by seasoning of timber? What are its objects?
6. What are the ingredients of an oil borne paint? Describe briefly each of them.

**SECTION-C (2 × 10 = 20 Marks)**

7. What is meant by curing of concrete? What is its purpose? Explain its methods.
8. With the help of a neat sketch, explain the working of Bull's trench kiln for burning of bricks.
9. Explain the design mix procedure by IS codal provisions.