

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CE) (Sem.-3rd)
BUILDING MATERIALS

Subject Code : CE-205

Paper ID : [A0603]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

I. Answer briefly :

- (a) State, with reason, the kind of stone you will recommend for use in the construction of external wall of a building, situated in the sea shore.
- (b) Mention any 2 advantages of clamp burning.
- (c) Mention any 3 properties of lime, which have made it, a very important engineering material.
- (d) Why is it necessary to cure concrete ?
- (e) Enumerate any 2 methods of concrete mix design.
- (f) What do you understand by hydration of concrete ?
- (g) State water-cement law.
- (h) What is seasoning of timber?
- (i) Differentiate between Paints & Varnishes.
- (j) What do you mean by High Strength Concrete ?

SECTION-B

2. What are the different tests applied to test the suitability of stones for structural use? Discuss any two tests.
3. Write down the properties of First Class bricks. Compare them with Third Class Bricks (properties).
4. What are different kinds of lime available for use on works ? Indicate the chemical reactions taking place during slaking and setting of lime.
5. Discuss various tests performed on Bitumen.
6. Explain the following operations in respect of cement concrete.
 - (a) Transportation of concrete
 - (b) Compaction of concrete

SECTION-C

7.
 - (a) Explain Bulking of Sand.
 - (b) Describe Initial setting time and Final setting time. Describe the procedure to find Initial setting time & Final setting time. (3 + 7)
8.
 - (a) Describe any one method to determine Workability of Concrete.
 - (b) Discuss factors affecting permeability of concrete. (4 + 6)
9.
 - (a) How can sap wood of trees be improved in strength and durability ?
 - (b) What is the object of seasoning timber ? (5 + 5)