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 :

 SECTION-A is COMPULSORY consisting of Ten questions carrying TWO marks each.

 SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.

 SECTION-C contains THREE questions parrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

- Write briefly :
 - a) What is meant by durability of stones?
 - b) How are bricks classified? How do they differ in compressive strength?
 - c) What do you understand by the terms Calcination and Hydraulicity?
 - d) Differentiate between Portland Cement and White Cement.
 - e) What are pozzolanic materials? What are their uses?
 - f) What is meant by water cement ratio?
 - g) What is seasoning? How is it necessary in timber?
 - h) List two defects of timber and its remediation.
 - i) Differentiate between Paints and Varnishes
 - j) What is meant by artificial asphalt? What is its use?

SECTION-B

- What properties you would consider in choosing stone for building construction in an industrial area subject to heavy rains? Name types of stones which you consider preferable.
- List the various tests you would like to perform on building bricks.
 Describe the test for water absorption indicating the standards.
- 4. Consider the properties of lime as a substitute to cement. How can the properties of lime be improved to make it a suitable alternative to cement?
- 5. What is meant by workability of concrete? How is it measured?
- 6. What are characteristics of a good timber?

SECTION-C

- 7. (a) Describe the different methods for design of concrete mix.
 - (b) Design a concrete mix, when voids in sand and aggregate are 30% and 40% respectively.
- 8. a) What is distemper? How is it prepared? Give uses of distemper.
 - b) What is varnish? What is the composition of varnish? What are the qualities of a good varnish?
- 9. Describe the importance of the following in RCC work:
 - (a) Water Cement Ratio
 - (b) Compaction of concrete
 - (c) Curing of the Concrete
 - (d) Fineness modulus
 - (e) Bulking of Sand.