

3E1622

Roll No. _____

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3E1622

B. Tech. III Semester (Main) Examination-2014

Civil Engg.

3CE2A Civil Engineering Materials

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Time : 3 Hours

Maximum Marks : 80
Min. Passing Marks : 24

Instructions to Candidates:

Attempt any **five** questions, selecting **one** question from **each** unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit - I

1. a) What are building stones? How are they classified? (8)
- b) What are the various standard test of stones write all and explain any two. (8)

OR

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1. a) What do you understand by Dressing of stones. Explain with suitable sketches, important methods of dressing of stones? (8)
- b) What are the common building stones and their uses? (8)

Unit - II

2. a) Explain important qualities of an ideal brick? (8)
- b) Describe in brief manufacturing process of bricks with suitable sketches? (8)

OR

2. a) How are tiles classified? Describe essential characters of some common type of roofing tiles. (8)

- b) What are the properties of fly ash and its use in manufacturing of bricks and cement. (8)

Unit - III

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3. a) Explain briefly manufacture of Portland cement by Dry process? (8)
- b) What are the different types of cements and their uses. (8)

OR

3. a) What is meant by fat lime and hydraulic lime? (8)
- b) Discuss the manufacturing process of lime and its basic properties. (8)

Unit - IV

4. a) Explain classification of motors? What is bulking of sand? (8)
- b) What do you mean by plaster. Discuss its function and tests? (8)

OR

4. a) Describe some major defect of timber with neat sketches? (8)
- b) What is mild steel and also explain any two tests of mild steel? (8)

Unit - V

5. a) What is the concept of embodied energy of materials. Write short notes on natural materials like bamboo and rammed earth? (8)
- b) What are supplementary cementitious materials. Write short notes on any two? (8)

OR

5. a) What are the types of glasses and their general properties? (8)
- b) Write short notes on. (8)
- i) Aluminium
- ii) Asbestos
- iii) Plastics