

3E1622

Roll No. \_\_\_\_\_

[Total No. of Pages : 3]

3E1622

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

Civil Engg.

3CE2A Civil Engineering Materials

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**

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

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 mortars? 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

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