

3E1622

Roll No. _____

Total No. of Pages : 3

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B. Tech. (Sem. III) (Main/Back) Examination, December - 2017
Civil Engg.
3CE2A Civil Engg. Materials

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 26

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.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. _____ Nil _____ 2. _____ Nil _____

UNIT - I

- 1 (a) List various methods used in quarrying the stones. Describe briefly the
method of quarrying by blasting. 8
- (b) What are the various uses of stones ? Describe in detail. 8

OR

- 1 Write short notes on the followings :
- (a) Water absorption test of stone.
(b) Selection of a site of a quarry.
(c) Advantages of quarry dressing of stone.
(d) Geological classification of rocks.

4×4=16

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[P.T.O.

UNIT - II

✓ 2 ✓ (a) Describe the process of burning of bricks in Hoffman's Kiln with the help of neat sketch.

8

✓ (b) List out different type of tiles and describe briefly two of them with the help of neat sketches.

8

OR

✓ 2 (a) List out the different tests of bricks. Describe any one test in detail.

8

(b) Explain various constituents of good brick clay.

8

UNIT - III

3 (a) List various types of cements; State briefly the application of each type.

8

(b) Explain the classification of limes in detail.

8

OR

✓ 3 Differentiate between the followings :

(a) Initial setting time and Final setting time of cement

(b) Cement and Lime

(c) White cement and Ordinary cement

(d) Quick lime and Slaked lime.

4×4=16

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[P.T.O.

UNIT - IV

- 4 (a) What is mortar ? List various types of mortar. Explain the method for preparing the cement mortar. 8
- (b) Explain the process of natural seasoning of timber. Mention its advantages and disadvantages. 8

OR

- 4 (a) Explain the various types of paints and varnishes and their application in detail. 8
- (b) Differentiate between the followings :
(i) Cup shakes and Star shakes defects of timber
(ii) White wash and Distempers. 2×4=8

UNIT - V

- 5 (a) Write short note on natural materials like bamboo, rammed earth, stabilized block. 8
- (b) Explain building material from agro and industrial wastes. 8

OR

- 5 Write short notes on the following :
(i) Plastic
(ii) Glass
(iii) Silica fume
(iv) Rice husk ash. 4×4=16