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ANNA UNIVERSITY:: CHENNAI

(UNIVERSITY DEPARTMENTS)

B.E / B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2013

CIVIL ENGINEERING BRANCH

SECOND SEMESTER

CE 8201 – CONSTRUCTION MATERIALS

(REGULATIONS 2012)

Time : Three hours

Maximum : 100 Marks

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. What are artificial stones?
2. Write short note on “frog in a brick”.
3. Distinguish between fat lime and hydraulic lime.
4. What is “bulking of sand”?
5. Distinguish between segregation and bleeding?
6. What is RMC?
7. List the market forms of timber.
8. What are the ingredients of paints?
9. What are “sealants”?
10. What are the advantages of composite materials?

Part –B (5 x16 = 80 Marks)

11. Explain the important tests (any three) to be conducted on fresh concrete with neat sketches.

12(a) (i) Describe the methods of quarrying of stones? (8 Marks)

(ii) Explain the various methods of preservation of stones. (8 Marks)

OR

- 12(b) (i) With neat sketches explain any one method of burning process of bricks. (8 Marks)
(ii) Explain the various tests on bricks to find its suitability in construction (8 Marks)

13(a) (i) Describe the dry and wet process of manufacture of cement (with neat sketch).

OR

- 13(b) (i) Explain the various tests to be conducted on coarse aggregate for making concrete. (12 Marks)
(ii) What are the general requirements of mortar? (4 Marks)

- 14(a) (i) Describe the various defects in timber with neat sketches. (8 Marks)
(ii) Explain the principles of Manufacture of TMT reinforcement bars for reinforced concrete construction. (8 Marks)

OR

- 14(b) (i) Describe the advantages of Aluminium in building construction. (10 Marks)
(ii) What are Varnishes? Describe the various types of varnishes. (6 Marks)

- 15(a) (i) Explain the various methods of manufacture of glasses with neat sketches. (12 Marks)
(ii) What are the uses of Glasses? (4 Marks)

OR

15(b) Write short notes on the following:

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|--------------------|-----------|
| (i) FRP | (6 Marks) |
| (ii) Clay products | (5 Marks) |
| (iii) Geotextiles | (5 Marks) |