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B.E./B.Tech.(Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2011

CIVIL ENGINEERING BRANCH

SECOND SEMESTER

24

CE 181 –CONSTRUCTION MATERIALS

(REGULATIONS 2004)

Time : 3 hr

Max Mark : 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. List the agencies that cause deterioration in stones.
2. Define efflorescence.
3. Give the classification of lime.
4. Define Flakiness index.
5. Give the importance of mix proportioning.
6. What is seasoning of timber?
7. What is distemper?
8. List the commonly used clay roof tiles.
9. Give the applications of bituminous materials.
10. What is high performance concrete?

Part – B (5 x 16 = 80 Marks)

11. Discuss in detail the various tests conducted on bricks to determine its suitability for construction work (16)
 12. a) Explain the different types of cement used in the construction industry. (16)
- (OR)**
- b) (i) Explain the method to determine the grade of sand. (10)
 - (ii) What is bulking of sand and describe the method of determining it. (6)

13. a) Describe in detail the factors that influences the properties of concrete. (16)

(OR)

b) Explain the tests conducted on fresh and hardened cement concrete. (16)

14. a) Explain in detail the manufacturing process of steel. (16)

(OR)

b) (i) Enumerate the advantages of using Aluminium in construction. (8)

(ii) What are the ingredients of paints? Discuss. (8)

15) a) (i) What are the different types of glasses used in construction industry (12)

(ii) What are the functions of sealants (4)

(OR)

b) Write short notes on (i) Fibre glass reinforced plastics. (6)

(ii) Geomembranes. (5)

(iii) Geotextiles. (5)