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**B.E / B.Tech ( Full Time ) DEGREE ARREAR EXAMINATIONS, APRIL / MAY 2014**

**CIVIL ENGINEERING**  
(Common to Agricultural and Irrigation Engineering)

Second Semester

**CE181/ CE 9152-Construction Materials (English & Tamil)**

(Regulations 2004/2008)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

**PART-A (10 x 2 = 20 Marks)**

1. What are artificial stones?
2. What are refractory bricks?
3. Lime saturation factor- define.
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 is bitumen?
9. Mangalore tiles-explain.
10. What are earth reinforcements?

**Part – B ( 5 x 16 = 80 marks)**

11. With neat sketches explain the manufacturing process of bricks.
12. a) Explain any four important tests to be conducted on fine aggregates.  

**(OR)**

b) (i) .Distinguish between wet and dry process.  
(ii). Explain the test on consistency of cement paste.
13. a) Write the detailed steps involved in mix proportioning of M20 grade of concrete.

**(OR)**

- b) Explain the following
  - (i). Tests on hardened concrete (8)
  - (ii). Tests on fresh concrete (8)

14. a) Discuss in detail about the heat treatment process of steel .

**(OR)**

- b) Explain the following
  - (i). Aluminum and its uses (10)
  - (ii). Types of paints and its uses(6)

15. a) What are sealants? Explain the procedure for using it in joints.

**(OR)**

- b) Write shorts notes
  - (i).Fibre textiles and its application
  - (ii).Types of clay products