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**B.E. DEGREE (Full-time) END SEMESTER EXAMINATIONS, MAY 2012**

**SECOND SEMESTER**

**CE 9152 - CONSTRUCTION MATERIALS**

**(Common to Civil and Agriculture and Irrigation Engineering)**

**(Regulations 2008)**

(10)

**Answer ALL questions**

**Time: 3 hours**

**Max. Marks: 100**

**PART-A (10x2 = 20 marks)**

1. What are the main uses of stones in construction?
2. What are the constituents of good bricks?
3. What are the different sources of lime?
4. What are the properties of cement?
5. How is concrete cured and why is curing required for concrete?
6. What is meant by seasoning of timber?
7. What is plywood and how is it manufactured?
8. What are the main uses of paints?
9. What are the different market forms of steel?
10. What are the general uses of glass as a building material?

**PART-B (5x16 = 80 marks)**

11. i. How are rocks classified? Briefly discuss the different classification of rocks? (8)  
ii. Explain briefly about any one method of manufacturing of Bricks? (8)
  
12. a)i. Explain briefly the determination of setting times of cement and the factors affecting it. (8)  
ii. Explain briefly the roles of fine aggregate and coarse aggregate in concrete? (8)

**(Or)**

- b)i. Briefly discuss the classification of lime? (8)  
ii. What are the raw materials used in the preparation of different types of mortars? (8)  
Explain briefly.

13. a)i. Briefly explain the principle and steps involved in the design of concrete mix proportioning by BIS method. (8)

ii. What are the ingredients of concrete and their functions? (8)

(Or)

b)i. What is slump test and explain the factors affecting workability of concrete. (8)

ii. Briefly discuss the compressive, Tensile and Shear strength properties of concrete. (8)

14.a)i. Explain the properties of good timber? (8)

ii. Explain the types of plywood and their uses in construction. (8)

(Or)

b)i. What are the uses of steel in building works? (8)

ii. Explain the advantages of ribbed steel bars. (8)

15.a)i. What are the ingredients of paint? Explain in detail. (8)

ii. Explain the properties of a good glass. (8)

(Or)

b)Write short notes on the following:

i. Composite material

ii. Fibre glass reinforced plastic

iii. Refractories