

**B.Tech. Civil (Construction Management) /  
B.Tech. Civil (Water Resources Engineering)**

**Term-End Examination**

**June, 2007**

**ET-204(B) : ENGINEERING MATERIALS**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Attempt any **five** questions. All questions carry equal marks. Your answer should be in your own language.

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1. (a) Describe the raw materials used for the manufacture of Portland cement. 7
- (b) What do you mean by rapid hardening cement ? Explain its uses. 7
2. (a) Explain the desirable characteristics of bitumen for road work. 7
- (b) Discuss the most important requirement to be kept in mind during the application of a bonding agent. 7
3. (a) Explain the various stages in the manufacture of concrete. 7
- (b) What do you understand by curing ? Discuss the advantages of using curing compounds. 7
4. (a) Discuss the application of Epoxy Resin. 7
- (b) Explain the qualitative requirements of the floor. 7

5. (a) What do you mean by Superplasticizers ? Explain the mechanism by which superplasticizers increase workability. 7
- (b) Describe the Damp proofing treatment for basement with the help of a systematic diagram. 7
6. (a) List the commonly used wall-papers and describe the fixing procedure of wall-paper. 7
- (b) Discuss the major advantages of using plastic sections over wood. 7
7. Write short notes on the following :  $4 \times 3 \frac{1}{2}$
- (a) Gypsum Plaster
- (b) Cement Concrete Floor Topping
- (c) Reconstructed Wood
- (d) Cable Trunking
8. Differentiate between the following :  $4 \times 3 \frac{1}{2}$
- (a) Hydraulic and Hydrated lime
- (b) Bonding and Sealing agents
- (c) Voltage booster and Voltage regulator
- (d) Setting and Hardening of concrete