

**GUJARAT TECHNOLOGICAL UNIVERSITY****M. E. Sem. – II<sup>nd</sup> - Examination – June/July- 2011****Subject code: 1721401****Subject Name: Advanced Civil Engineering Materials****Date: 22-06-2011****Time: 10.30am to 1.00pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss briefly the properties of materials. **07**  
(b) What are the main classifications of rocks? Explain briefly. **07**

- Q.2** (a) What are the materials required in blasting? Describe the process of blasting rocks. **07**  
(b) Describe, giving sketches, the process of manufacture of lime. **07**

**OR**

- (b) Write short notes on High alumina cement & Rapid hardening cement. **07**

- Q.3** (a) Enumerate and discuss briefly the various steps required for the preparation of plain cement concrete. **07**  
(b) What are the various ingredients of the plastics? Give their specific uses. **07**

**OR**

- Q.3** (a) Explain in details “Geosynthetics” **07**  
(b) Describe the Glass wool & Foam glass. **07**

- Q.4** (a) Write short notes on Adhesives & Asbestos. **07**  
(b) Write short notes on Heat insulating materials & Damp proofing materials **07**

**OR**

- Q.4** (a) Write short notes on Deterioration of concrete and its prevention. **07**  
(b) Write an essay on “Deterioration & Preservation of Timber”. **07**

- Q.5** (a) Discuss the important properties and engineering applications of any one of the following metals: copper, lead, zinc, aluminium. **07**  
(b) Write short notes on: silica fume concrete for high rise buildings **07**

**OR**

- Q.5** (a) “Corrosion of metals is a process which causes losses of millions of rupees every year”. Give your comments. **07**  
(b) Explain in details “sealants” **07**

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