

Roll No.

23376

**M. Tech. 1st Sem. (Civil Engg.)
Specialisation in Structural Engg.
Examination – December, 2013**

MATERIAL TECHNOLOGY

Paper : CE-601/MTSD-101

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions.

1. Explain chemical composition of cement & also explain the different types of cement 20
2. Explain in detail, factors affecting the strength of Concrete. 20
3. Draw & explain the stress-strain curve behavior of mild steel in simple tension. 20
4. Define the durability of concrete & also explain the effects of air-entrained in concrete. 20

5. (i) Explain the tests for determining the workability of concrete. 10
- (ii) Define Fibre Reinforced Concrete. 10
6. Explain in detail, all the factors influencing the fatigue strength. 20
7. Define the effect of temperature on concrete and also explain high temperature properties. 20
8. Define creep of concrete & also explain its mechanics in tension. 20
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