

Roll No .....

**MVCT/MBCT/MVCP-102**

**M.E./M.Tech., I Semester**

Examination, December 2014

**Construction Materials**

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

iii) Assume suitable data, if found missing.

1. a) What do you mean by standardisation of materials? Discuss necessity, advantages and of codification.  
b) Enumerate various construction materials. How will you analysed these materials at micro- structure level?
2. a) Discuss thermal and chemical effect on materials.  
b) Discuss importance of fresh and hardened properties of concrete in detail.
3. a) What do you understand by admixtures and additives? Discuss their role in design and production of concrete.  
b) What are different types of fibers used in Fiber Reinforced Concrete? Discuss all type along with their advantages.
4. How industrial and agriculture waste can be used to make building materials? Enumerate such type building materials. Discuss application of these materials in detail.

5. a) Discuss various aspect and principle of statistical quality control of concrete.  
b) Write a note on Indian standard procedure of testing of concrete.
6. Distinguish between the following:  
a) Ferro cement and Ferro concrete  
b) Destructive and non destructive testing of materials.
7. Write a detailed note on the following:  
a) Composite materials and their application  
b) Corrosion, oxidation and Radiation of materials
8. Write notes on the following:  
a) Light weight and heavy weight concrete.  
b) Polymer concrete.  
c) Material classification.  
d) Shrinkage and creep of concrete.

\*\*\*\*\*