

4. Write a detailed note on permeability and durability of concrete.
5. Write a brief description on the following-
  - a) Ready mixed concrete
  - b) Self compacting concrete
  - c) High performance concrete
  - d) Light weight concrete
6. Explain Mix Design of M-25 grade of concrete by IS recommended guidelines in detail.
7. Describe in detail-
  - a) Cold weather concreting
  - b) Hot weather concreting
8. What do you understand by Non Destructive Testing? Enlist various methods of NDT of concrete. Describe testing of concrete by Schmitt's Rebound Hammer.

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**MVSE - 203**  
**M.E./M.Tech., II Semester**  
Examination, June 2014  
**Advance Concrete Technology**  
*Time : Three Hours*

*Maximum Marks : 70*

*Note :* Attempt any five questions.

All questions carry equal marks.

1. What are various types of cement? Explain in detail. Mention their properties and uses.
2. Write brief notes on the following-
  - a) Workability of concrete and its measurement in the laboratory.
  - b) Bleeding of concrete. Effect of bleeding and prevention of bleeding.
  - c) Compaction of concrete
  - d) Care to be taken while transporting and placing of concrete.
3. Discuss the following:
  - a) Shrinkage of concrete and its different types.
  - b) Relationship between compressive strength and tensile strength of concrete.
  - c) Creep of concrete
  - d) Effect of maximum size of aggregate on the strength of concrete.