

B.Tech. Civil (Construction Management)

Term-End Examination

December, 2010

**ET-522 : CONCRETE TECHNOLOGY &
CONSTRUCTION TECHNIQUES**

Time : 3 hours

Maximum Marks : 70

Note : Answer any five questions. All questions carry equal marks. Support your answer with neat sketches, wherever necessary.

1. (a) Discuss compound composition of OPC. 7
(b) Discuss alkali - aggregate reactions in concrete. 7
2. (a) What is an admixture ? Enlist various types of admixtures used in concrete. 7
(b) What is meant by Bleeding of concrete ? What are the factors that affect it ? 7
3. (a) What do you understand by characteristic strength of concrete ? How is it determined ? 7
(b) How can fire resistance of concrete be improved ? Discuss. 7

4. (a) Discuss the test to determine flexural strength of concrete. 7
(b) Write the procedure of conducting Rebound Hammer test. 7
5. (a) What is Fibre Reinforced Concrete ? What are the different types of fibres used in concrete ? 7
(b) Discuss the use and advantages of polymer concrete ? 7
6. (a) What is shotcrete ? How is it different from ordinary concrete ? 7
(b) What is Ferro Cement ? What are the advantages and applications of Ferro Cement ? 7
7. Write short notes on *any two* of the following :
- (a) Different methods of Diaphragm wall construction.
(b) Different types of piles.
(c) Types of formwork used in construction.
(d) Concreting under water. 2x7=14
-