

B.Tech. Civil (Construction Management)

Term-End Examination

00247

June, 2014

**ET-522 : CONCRETE TECHNOLOGY AND
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) What are various compounds of cement ?
Write a note on characteristics of any one of these compounds. 7
- (b) Discuss the properties of aggregates which can affect workability of concrete. 7
2. (a) Explain the requirements for quality of water used in concreting. 7
- (b) What is a superplasticizer ? Explain its effect in concrete. 7
3. (a) Describe the slump test for concrete. 7
- (b) Explain why machine mixing is more appropriate for concrete, in comparison to hand mixing. 7

4. (a) What do you understand by curing of concrete ? Why is it important for development of strength ? 7
- (b) Explain why over-vibration of concrete should not be attempted. 7
5. (a) What are the various factors affecting workability of concrete ? Discuss in brief. 7
- (b) What is the purpose of using scaffolding ? Write a classification of scaffolding. 7
6. (a) Write some precautions to be taken while concreting in a hot weather condition. 7
- (b) Explain the procedure of determining 'Fineness modulus' of aggregate. 7
7. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Cold weather concreting
- (b) Creep of concrete
- (c) Shrinkage of concrete
- (d) Form work
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