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Roll No.

D-75

B. Tech. EXAMINATION, May 2018

(Fourth Semester)

(B. Scheme) (Main & Re-appear)

(CE)

CE210B

CONCRETE TECHNOLOGY

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Assume any data if missing in the question paper. Use of Relevant Indian standard is allowed in the examination.

(2-55/13) M-D-75

P.T.O.

Unit I

1. What are the effects of the shape and texture of aggregates on the strength and the workability of concrete ? Also explain the different moisture states in which aggregates exist. **15**
2. Explain the following :
 - (a) How does a surface-active agent increase workability ? Explain in detail.
 - (b) List various test for cement and explain any *two* in detail. **15**

Unit II

3. Define Abram's law, also explain the factors affecting workability of concrete in detail. **15**
4. What do you understand by the freeze and thawing of concrete ? How does it effect the strength explain in detail. **15**

Unit III

5. Explain the principles of concrete mix design. What are the various factors governing the selection of mix proportion according to Indian standard ? **15**
6. Write down the step by step procedure for mix design recommended by Indian Standard. Also mention the code name. **15**

Unit IV

7. What are different types of corrosion measurement techniques ? Explain in three in detail. **15**
8. What are special features of underwater concreting and in what circumstances it requires ? **15**