

Paper Id: 910200

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B.TECH.
(SEM V) THEORY EXAMINATION 2019-20
CONCRETE TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A1. Attempt all questions in brief. 2 x 7 = 14

a.	Write wet process of cement.
b.	What are supplementary cementitious materials?
c.	Define creep of concrete?
d.	Write short note on cellular concrete.
e.	What is durability of concrete?
f.	What are the statical methods of mix design?
g.	Define mix concrete.

SECTION B2. Attempt any three of the following: 7 x 3 = 21

a.	Write down the names of important compounds of cement and explain the influence of each on the properties of cement.
b.	Differentiate between the controlled concrete and ordinary concrete.
c.	Write the factors to be considered for a mix design.
d.	Why it is necessary to add gypsum in the manufacturing of cement?
e.	Write the basic principle of Ready mix concrete placement methods.

SECTION C3. Attempt any one part of the following: 7 x 1 = 7

(a)	Classify the types of cement and explain Air entraining cement.
(b)	Describe the sieve analysis to determine the fineness modulus of the aggregates.

4. Attempt any one part of the following: 7 x 1 = 7

(a)	Write the advantages of addition of pozzolana as admixtures.
(b)	Describe characteristic of metakaoline on concrete properties.

5. Attempt any one part of the following: 7 x 1 = 7

(a)	What data required for mix proportioning and explain target mean strength.
(b)	What are the role of water in concrete? Explain what are the sources of aggregates?

6. Attempt any one part of the following: 7 x 1 = 7

(a)	Describe in detail Vee-Bee consistometer test to determine workability of concrete.
(b)	Define light weight concrete and explain in detail the classification of light weight concrete.

7. Attempt any one part of the following: 7 x 1 = 7

(a)	Describe recycled aggregate concrete status in India.
(b)	What do you mean by Fiber Reinforced Concrete and also explain factors affecting the properties of FRC.