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BTECH
(SEM V) THEORY EXAMINATION 2023-24
CONCRETE TECHNOLOGY

TIME: 3 HRS**M.MARKS: 70***Note: Attempt all Sections. If require any missing data; then choose suitably.***SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

a.	What is soundness in cement?
b.	What is admixture?
c.	What is pozzolana? Explain its effect on Concrete.
d.	Explain Abram's Water Cement Ratio Law.
e.	Explain the Vee-Bee test of determining workability with neat sketch
f.	Discuss the application of fiber reinforced concrete.
g.	Write down the applications of recycled aggregate.

SECTION B**2. Attempt any three of the following:****7 x 3 = 21**

a.	Explain alkali aggregate reaction? What are the factors which affect this reaction?
b.	Explain admixture? Why is it used with concrete? Also give its types.
c.	Explain step by step the American Concrete Institute method of mix design.
d.	What is shrinkage of concrete? Explain different factors affecting of shrinkage.
e.	Describe the different kinds of fiber that are used to fiber-reinforced concrete.

SECTION C**3. Attempt any one part of the following:****7 x 1 = 7**

a.	What is cement? Also give its composition.
b.	Enumerate the various impurities in water having negative effects on concrete.

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

a.	Discuss fly ash in concrete. Explain the effect of fly ash on various properties of concrete?
b.	Describe the impact of silica fume on the characteristics of concrete.

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

a.	Explain the factors of rheological properties of concrete.
b.	Discuss various principles of proportioning of mix design.

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

a.	Describe the processes involved in mixing and transporting concrete at a construction site.
b.	Discuss the factors affecting bleeding of concrete.

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

a.	Which techniques are available for making high strength concrete?
b.	Define ready mix concrete. Briefly describe RMC plant.