R10

Set No. 1

III B. Tech I Semester Supplementary Examinations, May - 2016
CONCRETE TECHNOLOGY
(Civil Engineering)

Time: 3 hours   **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
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1	a)	Explain the laboratory tests of cement.	[8]
	b)	Write about accelerators, retarders and plasticizers.	[7]
2	a)	Write a short note on grading and surface area of aggregate.	[8]
	b)	Write about Alkali-Aggregate reaction and explain how we can control.	[7]
3	a)	What are the various factors influencing the workability?	[8]
	b)	Explain about segregation and bleeding.	[7]
4	a)	Write the relation between compression and tensile strength.	[8]
	b)	Describe the importance of curing and explain different types of curing.	[7]
5	a)	What is the importance of non-destructive tests?	[8]
	b)	What are the factors affecting the strength of concrete?	[7]
6	a)	What are the factors affecting modulus of elasticity?	[8]
	b)	Explain in detail the classification of shrinkage.	[7]

7   Design a concrete mix of M25 grade. Take standard deviation of 5MPa. The specific [15]
     gravities of coarse aggregate and fine aggregate are 2.75 and 2.60 respectively. The bulk
     density of coarse aggregate is 1610kg/cu.m and fineness modulus of fine aggregate is
     2.72. Design the concrete mix using IS code method. Assume any missing data suitably.

8   Explain the following: [15]
     i) No-fines concrete
     ii) High performance concrete
     iii) Self consolidating concrete
     iv) Fiber reinforced concrete.

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