

Code No. : **5046** 

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## **FACULTY OF ENGINEERING** B.E. 4/4 (Civil) I Sem. (Main) Examination, January 2012 CONCRETE TECHNOLOGY

lim	ne: 3 Hours] [Max	k. Marks: 75
	Note: Answer all questions from Part A. Answer any five question from Part B.	ns
	PART – A	(25 Marks
1.	What are the main functions of various ingredients of concrete	3
2.	Differentiate between segregation and bleeding.	2
3.	Explain the relation between gel-space ratio and strength of concrete.	3
4.	What do you mean by 'maturity' of concrete?	2
5.	What are the basic considerations in the design of a concrete mix?	3
6.	What are 'controlled low strength concretes'?	2
7.	Why are the early strengths of fly ash concretes lower than those of the normal conc	retes? 3
8.	What is the principle of functioning of water reducing admixtures?	2
9.	How do you overcome the workability problems in 'fibre reinforced concrete'?	3
10.	What are the applications of high density concrete?	2
	PART – B	(50 Marks)
11.	a) What are Bogue's compounds? How do they influence the properties of ceme	ent? 5
	b) Explain any two tests on workability of concrete, mentioning their suitability.	5
12.	Discuss in detail the various short term and long term properties of concrete.	10
13.	Compare the I.S. Code method of mix design with ACI and British methods.	10
14.	Give a detailed classification of admixtures for concrete mentioning suitable examples for each type.	10

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15. a) Explain the concept of ready mix concrete.	. 5		
b) Explain the advantages and disadvantages of rice husk ash concrete.	5		
16. a) What are the various ways of producing light weight concrete?	5		
b) List out the advantages and disadvantages of recycled aggregate cond	crete. 5		
17. Write short notes on the following:			
a) Durability of concrete.	4		
b) Curing of concrete.	3		
c) Fibre shot creting.	3		