## B.E. Civil Engineering Fourth Semester CE403 - Concrete Technology

P. Pages : 1 Time : Three Hours			* 1 2 0 9 *	<b>GUG/W/18/1535</b> Max. Marks : 80	
	Note	es : 1. 2. 3. 4. 5.	Attempt all questions. All questions carry equal marks. Due credit will be given to neatness and adequate dimensions. Assume suitable data wherever necessary. Illustrate your answers wherever necessary with the help of neat	t sketches.	
1.	a)	Explain	n main constituents of cement and their effects.	8	
	b)	Explain	n with neat sketch soundness of cement.	8	
2.	a)	Explain	n Fineness of cement and its effect.	8	
	b)	Explain	n water quality required for mixing and curing of concrete.	8	
3.	a)	Explair	n compaction factor test with neat sketch.	8	
	b)	Explain	n effect of temperature on curing and strength gain.	8	
4.	a)	Explair	Abrams water cement ratio and its significance.	8	
	b)	Explain	n segregation and bleeding.	4	
	c)	Explain	n in brief different method of curing.	4	
5.	a)	Explair	n Aspect ratio and its effect on strength.	8	
	b)	Enlist I	NDT methods and also state its importance.	8	
6.	a)	Explair	OR Bebound hammer test with neat sketch	9	
	u) b)	Explain	n Brazillian test with neat sketch.	7	
7.	a)	Evolair	ACI method of mix Design	10	
	a) b)	What a	re the various factors affecting mix design	10	
	0)	vv nat a	OR	Ū	
8.	a)	What d	o you mean by quality control. How it is achieved.	4	
	b)	Explair	n I. S. Code method of mix design step by step.	10	
	c)	Explair	n standard deviation.	2	
9.	a)	Enlist a	and explain different types of admixtures.	10	
	b)	Explain	n creep and shrinkage with neat sketch. OR	6	
10.	a)	Explain	n the various factors affecting creep and shrinkage.	8	
	b)	Explain	n in brief super plasticizers.	5	
	c)	Explair	n in brief fly ash cement.	3	

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