Enrollment No: \_\_\_\_\_ Exam Seat No: \_\_\_\_\_

## C.U.SHAH UNIVERSITY **Summer Examination-2018**

## Subject Name : Concrete Technology

	Subject	Code: 4TE03	SCNT1	Branch: B.Tech (Civil)			
	Semeste	er:3	Date : 04/04/2018	Time : 02:30 To 05:30	Marks : 70		
	(2) (3)	Use of Program Instructions we Draw neat diag		y other electronic instrument is p ook are strictly to be obeyed. cessary) at right places.	rohibited.		
Q-1		Attempt the	following questions:			(14)	
	a)	Name the ad	mixtures available in In	idia?			
	b)	Define Accelerators.					
	c)	Enlist any three grades of cement with their strengths.					
	d)	What is the f	function of gypsum in th	ne manufacture of cement?			
	e)	Give the typ	es of concrete mixes.				
	<b>f</b> )	List the adva	intages of Design mix				
	<b>g</b> )	Enlist the dis	sadvantages of nominal	mix.			
	h)	Define conce	rete durability.				
	i)	Define comp	baction factor				
	<b>j</b> )	What is the	use of Kelly Ball Penetr	ation test?			
	k)	List the facto	ors affecting Compressi	ve Strength			
	l)	Define light	weight concrete.				
	m)	Name some	of the natural light weig	ght aggregate			
	n)	Define SIFC	ON				
Atte	empt any	four question	s from Q-2 to Q-8				
Q-2	1	Attempt all	questions				
	(a)	Explain the	dry process for manufac	cturing of cement with a neat flow	v chart.	(10)	
	<b>(b)</b>	Enumerate the	he various tests for cem	ent.		(4)	



Q-3		Attempt all questions				
	(a) Explain the various factors affecting workability					
	<b>(b)</b>	What is segregation and bleeding, how can it be prevented?	(6)			
	( <b>c</b> )	Write a short note on retarders.	(4)			
Q-4		Attempt all questions				
	<b>(a)</b>	Write a short note on creep of concrete.	(4)			
	<b>(b)</b>	Enumerate the factors affecting modulus of elasticity.	(4)			
	( <b>c</b> )	Discuss the various classification of shrinkage in concrete.	(6)			
Q-5		Attempt all questions				
	<b>(a)</b>	Explain various types and causes of cracks in concrete.	(8)			
	<b>(b</b> )	Discuss the different methods of controlling sulphate attack.	(6)			
Q-6		Attempt all questions				
	(a)	What are the non-destructive methods for testing concrete?	(8)			
	<b>(b</b> )	Explain, how the flexural strength of concrete is determined.	(6)			
Q-7		Attempt all questions				
	(a)	Explain in detail about the various types of polymer concrete.	(8)			
	<b>(b</b> )	Write a short note on vacuum concrete with a neat sketch.	(6)			
Q-8		Attempt all questions				
	<b>(a)</b>	Explain in detail about the Fiber Reinforced Concrete and its application?	(4)			
	<b>(b)</b>	What are the factors affecting the proportioning of concrete mix?	(6)			
	(c)	What is meant by self compacting concrete and where it is used?	(4)			

