Enrollment No:	Exam Seat No:
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C. U. SHAH UNIVERSITY

Winter Examination-2019

Subject Name: Repair and Rehabilitation of Structures

Subject Code: 4TE07RRS1 Branch: B.Tech (Civil)

Semester: 7 Date: 18/11/2019 Time: 10:30 To 01:30 **Marks**: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1		Attempt the following questions:	(14)
	a)	Enlist various types of Causes of distress of concrete.	(1)
	b)	What do you mean by corrosion?	(1)
	c)	What is thermal conductivity?	(1)
	d)	Enlist various types of factors affecting permeability.	(1)
	e)	What do you mean by Restoration	(1)
	f)	Define Grouting.	(1)
	g)	What is the important of NDT test?	(1)
	h)	Enlist various types of surface coating.	(1)
	i)	List various construction and design deficiency.	(1)
	j)	What is important of field and laboratory testing for damage assessment of structure?	(1)
	k)	Enlist various types of Mineral Admixture.	(1)
	1)	What are the construction errors occurring during concrete construction?	(1)
	m)	Enlist various modified epoxy system.	(1)
	n)	Enlist various types of factor affecting properties of fiber reinforced concrete.	(1)
Atter	mpt any	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	(A)	Enumerate the various defects during construction stage with its causes and prevention.	(7)
	(B)	Explain the various stages of condition survey in detail.	(7)
Q-3		Attempt all questions	(14)
	(A)	Explain the classification of commonly used Non Destructive Evaluation (NDT) test.	(7)
	(B)	Write short on Ferro cement.	(7)
Q-4		Attempt all questions	(14)
	(A)	What are the application of polymer Impregnated concrete?	(7)
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	(B)	Enumerate the different types of surface coating used in concrete.	(7)
Q-5		Attempt all questions	(14
	(A)	Explain the various factors affecting properties of FRC with its application and advantages.	(7)
	(B)	Discuss in detail about the two different process employed for Shotcreting in construction	(7)
Q-6		Attempt all questions	(14
	(A)	Explain the two methods of Under-Pinning techniques for foundation rehabilitation with neat Sketches.	(7)
	(B)	Define Durability. Explain the various factors affecting durability.	(7)
Q-7		Attempt all questions	(14)
	(A)	Write short note on Alkali Aggregate Reaction.	(7)
	(B)	Write silent points in Demolition Plan.	(7)
Q-8		Attempt all questions	(14
-	(A)	Explain the methodology to repair a earthquake deficient masonry structures with neat sketches.	(7)
	(B)	Write short notes on beam jacketing and column jacketing	(7)

