Seat No.:	Enrolment No.
Seat No	Emoniem No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII • EXAMINATION - WINTER • 2014

Su	bject	Code: 180607 Date: 25-11-2014	
Su	bject	Name: Repairs and Rehabilitation of Structures	
Ti	me: 0	2:30 pm - 05:00 pm Total Marks: 70	
Ins	truction		
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain the causes of distress in structure. Explain various stages of condition survey. Mention the objectives of condition survey.	07 07
Q.2	(a) (b)	How the field and laboratory testing are useful for damage assessment of structures? Enlist the Non destructive test for structures and explain the "Ultra sonic pulse"	07 07
	(8)	velocity test" in detail.	07
	(b)	What is Half cell potential test? Explain it's use with fig.	07
Q.3	(a) (b)	Define durability and explain factors affecting durability of structures. What is corrosion? Explain mechanism by which steel corrodes in concrete.	07 07
		OR	
Q.3	(a) (b)	What are the causes of cracks in concrete? Explain in detail. What is sulphate attack on concrete? Enlist the methods used to control sulphate attack on concrete.	07 07
Q.4	(a) (b)	Classify the Repair materials based on types of application. What is polymer impregnated concrete? Write the application of it. OR	07 07
Q.4	(a) (b)	Write short note on : (i) Crack sealing materials (ii) Micro concrete. What is shore? Enlist different types of shores and explain use of Dead shore with sketch.	07 07
Q.5	(a)	Define: Repair, Retrofitting, Rehabilitation, Restoration and explain crack repair technique.	07
	(b)	Explain column jacketing and plate bonding with sketch. OR	07
Q.5	(a) (b)	Describe in brief the various methods / technique of demolition. Explain the precautions to be taken during demolition of structure.	07 07
