Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

Su Ti	bject	Code:180607 Date:16/05/2016 Name:Repairs & Rehabilitation of Structures (Department Elective-II) 0:30 AM to 01:00 PM Total Marks: 70 as:	
	1.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	State the reasons of deterioration of reinforced concrete buildings. Explain	07
	(b)	prevention measures during concreting and during its usage. What are the objectives of condition survey? In detail explain the various stages of it.	07
Q.2	(a) (b)	Describe factors affecting corrosion of steel in concrete. Explain the need of cover in RCC structures. Give IS:456-2000 recommendation for nominal cover.	07 07
		OR	
	(b)	"Air and moisture permeability of concrete adversely affect the health of concrete"- Justify the statement with examples.	07
Q.3	(a) (b)	Write a short note on polymer concrete. What is shore? Enlist different types of shores and explain use of Dead shore with sketch.	07 07
		OR	
Q.3	(a) (b)	State in detail the essential parameters for repair materials. Write a short note on Ferrocement.	0′2 0′2
Q.4	(a) (b)	Enlist and explain long term health monitoring techniques. Explain various methods to repair a earthquake deficient masonry structure. OR	07 07
Q.4	(a) (b)	Distinguish between Rehabilitation and Retrofitting. Explain concrete repairing by grouting.	0'. 0'.
Q.5	(a) (b)	List methods of demolition and explain in brief. Discuss factors affecting selection method of demolition. OR	0′. 0′.
Q.5	(a) (b)	Explain the ultrasonic pulse velocity test in detail. Define durability of concrete and explain the major causes of inadequate durability	07 07
