

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (OLD) EXAMINATION – SUMMER 2019****Subject Code: 180607****Date: 17/05/2019****Subject Name: Repairs & Rehabilitation Of Structures****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) List out various technique for crack repair. Explain grouting in detail. **07**
(b) Explain in short procedure for damage assessment in structural elements. **07**
- Q.2** (a) Explain briefly cracking of concrete and remedial measures for prevention of cracking. **07**
(b) Explain the need of cover in RCC structures. Give IS: 456-2000 recommendation for nominal cover. **07**
- OR**
- (b) List out various Non Destructive Test (NDT) used to determine strength of Existing structure. Explain any one of them. **07**
- Q.3** (a) Distinguish between Rehabilitation and Retrofitting. **07**
(b) What is shore? Enlist different types of shores and explain use of Dead shore with sketch. **07**
- OR**
- Q.3** (a) What is meant by carbonation of concrete? How it is determined in concrete? What are the limitations associated with it? **07**
(b) Enlist and explain long term health monitoring techniques. **07**
- Q.4** (a) Explain the precautions to be taken during demolition of structure. **07**
(b) Explain column jacketing and plate bonding with sketch. **07**
- OR**
- Q.4** (a) What is polymer impregnated concrete? Write the application of it. **07**
(b) Explain the methodology to repair an earthquake deficient masonry structure. **07**
- Q.5** (a) Discuss Sulphate attack on concrete. **07**
(b) Write in brief about Foundation Rehabilitation Methods. **07**
- OR**
- Q.5** (a) Write short note on Foamed Concrete. **07**
(b) Write short note on Expansive Cement. **07**
