

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII (OLD) EXAMINATION – WINTER 2018****Subject Code: 180607****Date: 29/11/2018****Subject Name: Repairs & Rehabilitation Of Structures****Time: 02:30 PM TO 05:00 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) Explain need of concrete cover in R.C.C. structure. Give IS 456:2000 recommendations for nominal cover **07**
(b) Classify the Repair materials based on types of application. **07**
- Q.2** (a) List out various non destructive Test. Explain rebound hammer Test. **07**
(b) What re the factors affect on durability? Explain in detail. **07**
- OR**
- (b) Write short note on Foundation Rehabilitation Methods. **07**
- Q.3** (a) Explain Guniting and Shotcrete as method of repair. **07**
(b) How do you evaluate repairs, and rehabilitate a structure distressed due to fire and marine exposure? **07**
- OR**
- Q.3** (a) Give the difference between retrofitting and rehabilitation of structure. **07**
(b) Explain column jacketing with neat sketch **07**
- Q.4** (a) Explain sulphate attack on concrete. **07**
(b) Explain briefly cracking of concrete and remedial measures for prevention of cracking. **07**
- OR**
- Q.4** (a) Describe in brief the various methods / technique of demolition. **07**
(b) Enlist and explain long term Health monitoring techniques. **07**
- Q.5** (a) Explain the precautions to be taken during demolition of structure. **07**
(b) Write short note on fiber reinforced concrete. **07**
- OR**
- Q.5** (a) How the corrosion starts in reinforced concrete structures? Give various preventive measures. **07**
(b) Write a short note on Vacuum Concrete and Visual observations to assess fire damaged structure. **07**
