

Roll No.

23424

**M. Tech 2nd Semester (Civil Engg.)
Specialization in Structural Design
Examination – May, 2018**

REPAIRS AND REHABILITATION OF STRUCTURES

Paper : MTSD-204

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions.

1. (a) What do you understand by the term distress in the structure ? What are the main symptoms in a structure referred to distress ?
(b) What are the various crack repair technique ? Explain.
2. List the causes for deterioration & distress in structures. Describe each, explaining what type of distress is witnessed due to each causes.

23424- (50) -(P-2)(Q-8)(18)

P. T. O.

3. How pre-repair evaluation is different from post-repair evaluation ? Discuss in detail.
4. What are the methods for repairing structural components at the element level ?
5. What are the unique features which demand specific attention while repair and rehabilitation ?
6. Describe in detail the techniques of damage assessment procedure for the repair and rehabilitation of structures.
7. Write a short note on the repair of following components :
 - (A) (a) Strengthening and stiffening of members.
 - (b) Strengthening and stiffening of beams and girders.
 - (B) Explain in detail how connections stabilization achieved. What are the stress reduction techniques ?
8. What do you understand by blanketing ? Describe difference types of blanketing. Also explain different types of overlays used in repair work.