

Roll No.

23424

**M. Tech. 2nd Sem. Civil Engg.
(Specialisation Structural Design)
Examination – May, 2016**

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. All questions carry equal marks.

1. Explain the role of observation and condition survey in calculating the distresses of the structure. Describe each, explaining what type of distress is witnessed due to each cause. 20

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2. What are methods by which we can assess the effectiveness of repair or rehabilitation executed? Explain in detail. 20

3. How structural components are repaired at element level using different techniques. Explain all in detail. 20

• What are the unique features which demand specific attention while repair and rehabilitation, explain with examples. 20

• What do you understand by damage assessment ? Explain the damage assessment procedure for the repair and rehabilitation of structures. 20

• Explain in detail the difference between pre-repair evaluation and post-repair evaluation. 20

• What type of procedure you will recommend for the following components for repairing and why, explain in detail : 20

(a) Column Strengthening.

(b) Strengthening and stiffening of slab.

(c) Crack stabilization.

(d) Member Replacement.

8. (a) What is jacketing ? Explain different methods of jacketing. 10

(b) Explain different types of overlays used in repair work. 10