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Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, April 2016
(2008 Scheme)
08.806.8 : Elective – IV : REPAIR AND REHABILITATION OF STRUCTURES (C)

Time : 3 Hours Max. Marks : 100

Instructions : *Answer **all** questions from Part **A** and **one** full question from **each** Module of Part **B**.*

PART – A

1. Explain briefly the following : **(8×5=40 Marks)**
   a) Damages in structures due to corrosion of steel reinforcement in RCC Columns.
   b) Deterioration of steel structures by impact load.
   c) Inspection and maintenance of a steel bridge.
   d) Different types of cracks and detection techniques.
   e) Importance and principles for adopting non destructive tests.
   f) Repairing corrosion damage of reinforced concrete.
   g) Jacketing.
   h) Precautions to prevent non structural cracks.

PART – B

Module – I

2. Explain the damages of a steel structure affected by earthquake loads. 20

OR

3. Explain the processes of inspection, maintenance and preventive measures to be taken against damages for RCC bridges in earthquake prone areas. 20

P.T.O.

Module – II

4. Explain the process of diagnosis and assessment of deterioration of a masonry two storeyed building in water logged area. **20**

OR

5. Explain rebound hammer test and Windsor probe test. Discuss the advantages, disadvantages and limitations of each test. **20**

Module – III

6. Explain the process of repairing steel structures damaged by corrosion, abrasion and fatigue. **20**

OR

7. a) Explain the method of pre-stressing for strengthening existing structures.

   b) What are the applications of ferrocement in repairing structures ? **20**