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E – 2362

Reg. No. :

Name :



**Eighth Semester B.Tech. Degree Examination, May 2018
(2013 Scheme)**

13.805.8 : REPAIR AND REHABILITATION OF STRUCTURES (C)

Time : 3 Hours

Max. Marks : 100

Instruction : Answer all questions.

PART – A

I. Explain briefly the following :

- a) How fatigue causes deterioration in steel structures ?
- b) Durability problems in steel structures due to corrosion.
- c) Pull out test.
- d) Repairing of deteriorated concrete floors.
- e) Pre-stressing for strengthening of existing structures.

(5×4=20 Marks)

PART – B

Answer **one full** question out of the **two** from **each** Module.

Module – I

II. a) Explain any four causes of deterioration in concrete structures. **20**

OR

b) Discuss the maintenance techniques to control the deterioration in steel structures. **20**

Module – II

III. a) Discuss the various steps taken for evaluation and diagnosis of deterioration in structures. **20**

OR

b) Explain the principle of pulse velocity method and how this method could be used for diagnosis and assessment of deterioration in concrete structures. **20**

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Module – III

IV. a) Describe the various procedures of repairing corrosion damage of reinforced concrete structural elements. **20**

OR

b) Discuss the various methods of repair of earthquake damaged structures. **20**

Module – IV

V. a) Describe the techniques of grouting and jacketing for strengthening of existing structures, clearly indicating the suitability of the methods. **20**

OR

b) Discuss the strengthening methods used for the, existing structures constructed on water logged areas. **20**
