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Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, April 2014
(2008 Scheme)
08.806.8 : Elective – IV
REPAIR AND REHABILITATION OF STRUCTURES (C)

Time : 3 Hours Max. Marks : 100

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

PART – A

I. Explain briefly the following :

a) How errors in design cause deterioration in concrete structures ?

b) How loosening of connections causes deterioration in steel structures ?

c) Factors influencing maintenance.

d) Diagnosis of cracking of concrete due to chemical reaction.

e) Various aspects regarding cracks that should be investigated before deciding the mode of repair.

f) Pre-stressing for strengthening of existing structures.

g) Painting for strengthening of existing structures.

h) Ferro-cement as a retrofitting material. **(8×5=40 Marks)**

PART – B

Module – I

II. Discuss the effect of earthquake on deterioration in concrete structures. 20

OR

III. Explain the various preventive measures taken against deterioration in steel structures. 20

P.T.O.

Module – II

IV. Explain the principle of surface hardness testing method and how this method could be used for diagnosis and assessment of deterioration in concrete structures. 20

OR

V. Explain the principles of Pull out test and Windsor Probe test, and how these methods could be used for the assessment of available strength in concrete structures. 20

Module – III

VI. Discuss the various procedures of repairing spalling and disintegration of concrete. 20

OR

VII. Explain the various methods of repair of cracks in structures. 20