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Code No: 58006

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year II Semester Examinations, May - 2016****REHABILITATION AND RETROFITTING OF STRUCTURES****(Civil Engineering)****Time: 3 Hours****Max. Marks: 75****Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Explain the various causes for deterioration of structures.
- b) Explain the various measures to be taken to prevent distress in structures. [7+8]
2. Explain the different types of damages in structures. [15]
- 3.a) Explain the mechanism of corrosion of steel reinforcement.
- b) Explain the various methods of prevention of corrosion of steel reinforcement. [7+8]
- 4.a) Explain the factors responsible for damage of structures due to fire.
- b) Explain the phenomena of desiccation. [8+7]
- 5.a) Explain the various methods of diagnosis of distress in structures.
- b) Explain the procedure for assessment of damage in structures using various non-destructive test methods. [5+10]
6. Explain the various types of repairs generally adopted for the different components of the concrete structures. [15]
- 7.a) Explain the necessity of strengthening of structures.
- b) Explain the various methods of strengthening of structural components. [7+8]
- 8.a) Explain the advantages and disadvantages of health monitoring of structures.
- b) Explain the use of sensors in monitoring the health of structures. [8+7]

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