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GIET UNIVERSITY, GUNUPUR – 765022

M. Tech (ThirdSemester – Regular) Examinations, December - 2020

MPECT 3012 - MAINTENANCE AND REHABILITATION OF STRUCTURES

(CTM)

Time: 2 hrs

Maximum: 50 Marks

PART – A (2 x 10 = 20 Marks)

Q.1. Answer ALL questions

- a. State the importance of preventive maintenance.
- b. What are the causes of deterioration?
- c. How can you control cracks in a structure?
- d. State any two characteristics of steel and concrete.
- e. List out any two possible reasons for spalling of cover concrete
- f. Cover to reinforcement steel in RCC is important - justify.
- g. List methods of corrosion protection
- h. Define the term Efflorescence of concrete?
- i. Enlist the various type of coatings for reinforcement to prevent corrosion
- j. What is meant by Maintenance Budgeting?

PART – B (6 x 5 = 30 Marks)

Answer ANY FIVE questions

Marks

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| 2. Describe the assessment procedure for evaluating a damaged structure with flow chart. | (6) |
| 3. Explain various types and techniques for repair of cracks in concrete structures. | (6) |
| 4. Describe the effects of corrosion in concrete structures. | (6) |
| 5. Explain the methods of corrosion protection. | (6) |
| 6. Describe the physical inspection of damaged structure. | (6) |
| 7. Discuss about the Plastic shrinkage cracks. | (6) |
| 8. Write different types and components of water proofing system of a basement of building. | (6) |
| 9. Explain the process of deterioration of concrete surface through carbonation. | (6) |

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