

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER M. TECH DEGREE EXAMINATION

Civil Engineering

(Structural Engineering & Construction Management)

04CE 7413—Maintenance and Rehabilitation of Structures

Max. Marks : 60

Duration: 3 Hours

PART A

Answer All Questions

Each question carries 3 marks

1. Explain the thermal properties of concrete.
2. What is meant by design error?
3. Explain Facets of Maintenance.
4. How can we achieve polymer concrete?
5. What is meant by polymer coating rebars?
6. What is underpinning?
7. What is meant by repair of structure?
8. How does weathering action affect durability?

PART B

Each question carries 6 marks

9. Explain quality assurance for concrete construction.
OR
10. How is crack controlling important in quality assurance for concrete?
11. Explain cover thickness and its role in durability.
OR
12. How does crack occur due to seasonal and diurnal variation?
13. Explain the importance of maintenance of concrete structure.
OR
14. Write on the causes of rust in Concrete reinforcement.
15. Explain polymer concrete as a repair material.
OR
16. How does fiber reinforced concrete help as repair material?
17. Explain the technique - Guniting
OR
18. Explain the technique – shotcrete.
19. Explain how to repair the cracked structural member?
OR
20. Explain repair to overcome the low member strength.