

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

THIRD SEMESTER M.TECH DEGREE EXAMINATION (Regular), FEBRUARY 2022**STRUCTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT****(2020 Scheme)****Course Code : 20CESCT233****Course Name: Maintenance and Rehabilitation of Structures****Max. Marks : 60****Duration: 3 Hours****PART A***(Answer all questions. Each question carries 3 marks)*

1. How quality assurance influences the strength of concrete structures?
2. Describe the corrosion mechanism in concrete structures
3. Explain the importance of maintenance
4. What is Sulphur Infiltrated Concrete?
5. When will we adopt vacuum concrete?
6. What is dry pack?
7. How will you suggest the repair methods on fire damaged structure?
8. Explain the underwater repair works.

PART B*(Answer one full question from each module, each question carries 6 marks)***MODULE I**

9. Validate the need of quality assurance in concrete construction. (6)

OR

10. How the quality assurance can control the thermal properties of concrete. (6)

MODULE II

11. How chemical attacks affect the service and durability of concrete structures. (6)

OR

12. Explain in detail about various corrosion protection methods. (6)

MODULE III

13. How will you access a damaged concrete structure? (6)

OR

14. Mention any three testing that can be adopted for concrete structures. (6)

MODULE IV

15. Write a short note on special concretes. (6)

OR

16. What is the importance of concrete chemicals. (6)

MODULE V

17. Suggest the situation of adopting rust eliminators in concrete construction. (6)

OR

18. Explain about shoring and underpinning. (6)

MODULE VI

19. Explain briefly on the strengthening methods of deficient structures. (6)

OR

20. Explain with example about the material and technique used for repair of any structure. (6)
