

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER M.TECH DEGREE EXAMINATION (Regular), DECEMBER 2022**STRUCTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT
(2021 Scheme)****Course Code: 21SC104-D****Course Name: Modern Construction Materials, Methods and Equipment****Max. Marks: 60****Duration: 3 Hours****PART A*****(Answer all questions. Each question carries 3 marks)***

1. Explain the structure of metals.
2. Discuss the stress strain behavior of polymers.
3. Enumerate the method of pipe jacking.
4. Explain on suspended formwork and its applications.
5. Discuss precast foundations.
6. Explain modular coordination.
7. Describe the types of trenching machines used in construction.
8. Write a short note on finishing equipments.

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

9. Describe the procedure of water jet cutting. (6)

OR

10. Explain the various surface treatment methods given to aluminium. (6)

MODULE II

11. Explain polymer coatings. (6)

OR

12. Write short notes on shape memory alloys and piezo electric materials (6)

MODULE III

13. Illustrate the different piling techniques used in substructure construction. (6)

OR

14. Compare guniting and shotcreting. (6)

MODULE IV

15. Explain the principle of vacuum dewatered flooring method. List the advantages. (6)

OR

16. Discuss on slip form techniques. (6)

MODULE V

17. Explain the concepts of modular construction (6)

OR

18. What is prefabrication and enumerate its advantages and disadvantages. (6)

MODULE VI

19. Compare the various compaction equipments. (6)

OR

20. Discuss the various drilling machineries. (6)
