

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SECOND SEMESTER M.TECH DEGREE EXAMINATION (Regular), JULY 2022**STRUCTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT****(2021 Scheme)****Course Code: 21SC204-D****Course Name: Prefabricated Structures****Max. Marks: 60****Duration: 3 Hours****PART A***(Answer all questions. Each question carries 3 marks)*

1. Explain details and significance of modular co-ordination in prefabricated system.
2. How are precast floors classified?
3. Discuss the behaviour of columns in prefabricated structures
4. What is meant by joint flexibility in prefabricated structures?
5. Draw and explain any one type of column foundation connection.
6. Draw and explain joint connecting wall panel with a frame.
7. Illustrate with neat sketch the layout of prefabrication plant.
8. Write short notes on plant machineries in prefabrication units.

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

9. Explain briefly the general principles of prefabrication (6)

OR

10. What is standardization? Explain. (6)

MODULE II

11. Write short notes on cross wall system. (6)

OR

12. With a flow chart explain the manufacturing process of roof and floor slabs (6)

MODULE III

13. Explain the behaviour of precast shear walls (6)

OR

14. Illustrate the process involved in prefabrication of columns. (6)

MODULE IV

15. Explain the joint techniques and materials used in detail and explain the design of expansion joint. (6)

OR

16. Describe any two beam column joints in pre-fabricated structures with neat sketches (6)

MODULE V

17. Enumerate the different types of connections in prefabricated structures with neat sketches (6)

OR

18. Discuss the design procedures of beam to column moment resisting connections (6)

MODULE VI

19. Explain the layout of prefabrication plant with a neat sketch (6)

OR

20. Discuss the process of production and transportation of prefabrication (6)
