

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**GEOMECHANICS AND STRUCTURES****(2021 Scheme)****Course Code: 21GS206-C****Course Name: Modern Construction Practices****Max. Marks: 60****Duration: 3 Hours****PART A***(Answer all questions. Each question carries 3 marks)*

1. Discuss the need and impact of dredging operations.
2. List the common types of mobile cranes.
3. Discuss the advantages and disadvantages of using belt conveyors for transporting concrete.
4. Discuss the significance of ventilation system in tunneling works and how it is achieved.
5. Explain suspended formwork.
6. Discuss the various joints provided in concrete roads.
7. Explain the in-situ prestressing techniques for tall structures.
8. Describe the features of ropeways used for aerial transportation of materials.

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

9. List the advantages and disadvantages of using large and small trucks in earthwork operations. (6)

OR

10. Discuss the various trenching machineries. (6)

MODULE II

11. Compare the various heavy compaction equipments. (6)

OR

12. Discuss the significance of dewatering at construction sites. Explain the widely used dewatering techniques. (6)

MODULE III

13. Explain the working principle of concrete batching plant with a neat sketch. (6)

OR

14. Describe the working principle of belt conveyers with the help of a neat sketch. (6)

MODULE IV

15. Discuss the stages of diaphragm wall construction. (6)

OR

16. Explain the laying operations of built up offshore system. (6)

MODULE V

17. Summarize the advantages and techniques involved in vacuum dewatering method of concrete flooring (6)

OR

18. Write short notes on concrete paving methods. (6)

MODULE VI

19. Explain the launching techniques adopted in segmented bridges. (6)

OR

20. Describe the step by step procedure for erecting light weight components on tall structures. (6)
