

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S8 (R,S) / S6 (PT) (R,S) Examination May 2024 (2019 Scheme)

**Course Code: CET454****Course Name: CONSTRUCTION METHODS AND EQUIPMENT****Max. Marks: 100****Duration: 3 Hours****PART A***Answer all questions, each carries 3 marks.***Marks**

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|----|---|-----|
| 1 | List the advantages of slip form technique | (3) |
| 2 | Discuss the vacuum dewatering of concrete flooring with a diagram | (3) |
| 3 | Compare between deep and shallow excavation | (3) |
| 4 | What is a pneumatic caisson? Where do we use it? | (3) |
| 5 | What are the uses of a ripper? | (3) |
| 6 | What is a sheep foot roller? | (3) |
| 7 | What is a transit mixer and what is its use? | (3) |
| 8 | What is the function of load cells in a Concrete Batching Plant | (3) |
| 9 | What are the equipment used for grouting? | (3) |
| 10 | Explain any three types of material handling conveyors | (3) |

PART B*Answer any one full question from each module, each carries 14 marks.***Module I**

- 11 a) Explain the erection techniques involved in tall steel and concrete structures with diagram. (14)

OR

- 12 a) Discuss in detail various techniques used for launching heavy decks (7)
b) Explain the procedure involved in the construction of monolithic domes (7)

Module II

- 13 a) Explain well point dewatering system with a neat sketch (7)
b) Discuss in detail any two piling techniques (7)

OR

- 14 a) What is a diaphragm wall? Explain the construction of a diaphragm wall in detail. (7)

- b) Describe the well sinking method (7)

Module III

- 15 a) Describe in detail any two hauling equipment (7)
b) Explain any two types of compaction equipment (7)

OR

- 16 a) Discuss the advantages of using various equipments in construction (7)
b) Discuss the role of tractors in earth moving. What consideration governs the selection of wheel type or crawler type tractor on a job? (7)

Module IV

- 17 a) Explain the equipment used for aggregate production (14)

OR

- 18 a) Explain the concrete production process in a mixing/ batching plant (14)

Module V

- 19 a) Explain four pile driving methods and required equipments in detail. (14)

OR

- 20 a) Explain the following types of crane with neat sketch. (14)
a) Tower Crane
b) Derik Crane
c) Mobile Crane
d) Gantry Crane
