

(3 hours)

Marks: 80

N.B.

1. Question No 1 is compulsory
2. Attempt any three questions from the remaining five questions
3. Figures to the right indicate full marks

Q1. Solve all the questions.

- | | | |
|----|---|-----------|
| a. | Classify construction equipment and its important role in construction industry | 05 |
| b. | Explain modern and conventional type of formwork. | 05 |
| c. | What is the purpose and types of tunnels? Explain factors to be considered during tunneling in hard and soft rocks. | 05 |
| d. | Enlist and explain the Dewatering technique for trench | 05 |

- | | | | |
|-----|----|---|-----------|
| Q2. | a. | Enlist the Equipment's involved in the construction of Metro Project. What construction techniques are used for setting up the metro station. | 10 |
| | b. | Enlist the different types of Drilling Equipment . Explain any one in detail with neat sketch. | 10 |

- | | | | |
|-----|----|--|-----------|
| Q3. | a. | What is TBM. Enlist all parts of TBM. Explain working and function of TBM. | 10 |
| | b. | Enlist & explain the Factor affecting the performance of pumping equipment's | 10 |

- | | | | |
|-----|----|--|-----------|
| Q4. | a. | Enlist the Equipments required for the construction of roads using paver machines. Explain the process in detail. | 10 |
| | b. | Enlist & Explain the Equipment Required for the construction of airport. Explain stage wise construction and equipment list. | 10 |

- | | | | |
|-----|----|---|-----------|
| Q5. | a. | Enlist & Explain the Equipment Required for the construction of Hydropower station. | 10 |
| | b. | Explain the Construction of railway lines using track laying machine in detail. Also enlist other equipment's required. | 10 |

- | | | | |
|-----|----|----------------------------------|-----------|
| Q6. | | Write short notes on (any four) | |
| | a. | Mivan technique of formwork | 05 |
| | b. | Power shovel | 05 |
| | c. | GPR system | 05 |
| | d. | Tower Crane | 05 |
| | e. | Types of pile driving equipments | 05 |
| | f. | Hoisting Equipments | 05 |