

Time: 3 Hours

Total Marks: 80

Q 1 is compulsory. Attempt any 3 out of the remaining questions.

- Q.1 Answer briefly. Each sub-question carries 05 marks. (20)**
- Define :
 - Ownership cost.
 - Operating cost.
 - Economic life.
 - Salvage value.
 - Obsolescence.
 - State the precautions to be taken while transporting, storing and handling explosives.
 - Define cladding. State the different cladding materials available.
 - Explain balancing of equipment with a suitable example.
- Q.2 (20)**
- Enlist various pile driving equipments and explain double acting hammer in detail. 10
 - Prepare a list of equipments required for: 10
 - Construction of a railway embankment.
 - Construction of a concrete pavement.
- Q.3 (20)**
- Write a detailed note on applications of Air compressor on a construction site. 10
 - Explain the working of well point system installed in a trench. 10
- Q.4 (20)**
- Enlist various stone crushing equipments and explain hammer mill in detail. 10
 - Write a note on New Austrian Tunneling method. 10
- Q.5 (20)**
- Enlist various soil stabilization techniques and explain diaphragm wall construction. 10
 - Explain the sequence of operations for tunneling using tunnel boring machine. 10
- Q.6 (20)**
- Justify: 10
 - Scraper is a multipurpose equipment.
 - Tunneling in soft rocks is difficult.
 - Write notes on : 10
 - Roller compacted concrete
 - Vacuum concrete.
-