

(3 HOURS)

[Total 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 indicates full marks



- Q 1 (20)
- a Briefly explain the procedure of erecting sand drains.
 - b Discuss balanced cantilever method of Bridge construction.
 - c Explain the Ways/means to transport, handle light weight structures.
 - d State the procedure of dewatering while laying foundation of a bridge pier.
- Q 2 (20)
- a Discuss various methods to prevent ingress of water in structures continuously submerged in water. 10
 - b Mention the various advanced construction technologies used with respect to the under construction Colaba-Seepz Underground metro in Mumbai. 10
- Q 3 (20)
- a Write down the method and sequence followed in the construction of : 12
i) Concrete Dome. ii) Lattice tower used in transmission line.
 - b State the advantages & disadvantages of prefab construction. 08
- Q 4 (20)
- a State various methods of strengthening columns and explain jacketing in detail. 12
 - b Discuss the special care taken while constructing buildings along the coastline. 08
- Q 5
- a Explain: i) Solar Paints. ii) Need of dredging. 10
 - b Explain the stepwise procedure of underwater construction of diaphragm walls. 10
- Q 6 Write short notes on: (20)
- a Process of post tensioning of slab.
 - b Energy dissipation techniques to enhance earthquake resistance.
 - c Vacuum dewatering of concrete flooring.
 - d Applications of geotextiles in ground improvement.

QP code: 85550

Prog. code: 1T00637