

T.E CIVIL - VI c-scheme

18.5.23

40+21

Max. Marks: 80

Time: 3 hours

N. B.

1. Question No. 1 is compulsory
2. Attempt any 3 Questions from the remaining.
3. All questions carry equal marks.
4. Figures on the right indicate the maximum marks for those questions.
5. Assume suitable data if required and highlight the same.

- Q. 1 Attempt Any Four 20
- a Write short a note on Earthmoving equipment
 - b Write a note on the tunnel boring machine.
 - c Distinguish between tunnelling of roads and metro
 - d Explain the procedure of installation and operation of the overhead transmission tower.
 - e Draw the layout of a hydropower station. Enlist the equipment required for the construction of a hydropower plant.
 - f What is PFHS? What are the advantages of PFHS?
- Q. 2 a What is formwork? Write a note on the MIVAN formwork system along with its advantages & disadvantages. 10
- b What are the different techniques for the demolition of buildings? Explain any one technique. 10
- Q. 3 a What is tunnelling? What are the popular methods of tunnelling in soft rock? Describe any two methods with a neat sketch. 10
- b Describe in detail with a diagram about slip and jump formwork 10
- Q. 4 a Explain with a neat sketch tower crane. & Write the benefits they offer for high-rise construction 10
- b Write a note on the laying of pipes using the pipeline insertion system. 05
- Q. 5 a Which method is used for bridge or flyover construction? Explain in detail the balanced cantilever method. 10
- b What are the different techniques/methods used for the construction of emergency houses for disaster management? 10
- Q. 6 a How effectively do drones and GPS are used for monitoring the projects/working of airports and seaports? 10
- b Write a detailed note on measures taken while working in a restricted space. 10