

(3 HOURS)

11/12/2025

[Total Marks:80]

QP-10099009

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 Enlist minimum two equipments each of the following categories:
 - i) Dewatering systems
 - ii) Trenching machines.
 - iii) Stone crushing equipments.
 - b Draw a flowchart showing the process of diaphragm wall construction.
 - c Draw a neat sketch/flowchart showing the components of an Hydro power plant.
 - d List the equipments required for an earthen dam construction.
- Q 2 (20)
- a Write a detailed note on Jumbo machine used for drilling and blasting. 10
 - b Describe the working of vertical shaft sinking machine. 10
- Q 3 (20)
- a State the advantages of : i) Slip form technique ii) Concrete placing boom. 10
 - b State how New austrian tunneling method works. 10
- Q 4 (20)
- a Describe in detail the process of Controlled demolition of buildings. 08
 - b Discuss how Ground penetrating radar works in locating underground utilities. 06
 - c Describe the difficulties faced in installation of prefabricated housing systems. 06
- Q 5
- a Elaborate Incremental launching method of bridge deck construction. 08
 - b Compare Standard equipments and Special equipments. 06
 - c Draw a neat labelled sketch of a tower crane. 06
- Q 6 (20)
- a Write short notes on : 16
 - i) Role of BIM in project progress monitoring.
 - ii) Role of LiDAR Technique while fixing road/rail alignment.
 - b State the factors affecting selection of an equipment for any construction process. 04

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