

ASSIGNMENT-1	PILE FOUNDATION
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1. What are under reamed pile? Explain the method of construction of it. Explain the situation under which it is used.
2. What is pile foundation? Explain under which condition you would prefer pile foundation.
3. Differentiate between End bearing pile and friction pile.

ASSIGNMENT-2	CAISSONS
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4. Discuss pneumatic caissons with neat diagram and its method of construction. Also enumerate merits and demerits.
5. Discuss causes of tilting of caissons. How it can be corrected?

ASSIGNMENT-3	DIAPHRAM WALL CONSTRUCTION
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6. Write short note on “Diaphragm Wall Construction”.

ASSIGNMENT-4	COFFERDAMS
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7. What is coffer dam? States its uses. Enlist the different types of coffer dam and explain any one with neat sketch.
8. State the factors which influence the choice of a particular type of coffer dam.
9. Which are the points of difference between caisson and coffer dam?

ASSIGNMENT-5	CONTROL OF GROUND WATER IN EXCAVATIONS
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10. Enlist various methods of controlling ground water during construction and suggest their suitability for different soil conditions.
11. Explain the different steps of process of vibro-flotation with help of neat sketches.
12. Explain various components, merits and demerits of well point system.

ASSIGNMENT-6	FORM WORK
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13. Where the slip form work can be used? Explain with neat sketch.
14. What is formwork? Discuss the formwork of RCC Beam and RCC Column with neat sketches.

ASSIGNMENT-7	CONSTRUCTION OF TALL STRUCTURE
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15. Write short notes of method of construction of tall structure.
16. What do you mean by tall structure? Why tall structure is required?

ASSIGNMENT-8	DEMOLITION OF WORKS
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17. List the various demolition methods and explain any two in detail.
18. Discuss various safety measures should be taken before and during demolition.

ASSIGNMENT-9	CONSTRUCTION EQUIPMENTS AND ENGINEERING FUNDAMENTALS
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19. Explain the importance of construction equipment on a project site.
20. Define the following terms:
 - (1) Depreciation Cost
 - (2) obsolescence
 - (3) Down time Cost
 - (4) scrap value
 - (5) operating cost
 - (6) ownership cost.
21. Enlist various factors affecting equipment selection. Explain any four of them in detail for given equipment.
22. Explain sinking fund method for calculation of depreciation?
23. Calculate the depreciation for each year by Straight line method for the Back hoe loader having purchase cost of Rs 26,00,000/- and scrap value at the end of useful life of five years equal to 10% of its original purchase price
24. Define following terms:
 - (1) Rim pull
 - (2) Drawbar pull
 - (3) Gradability
 - (4) Rolling resistance
 - (5) coefficient of traction

ASSIGNMENT-10	EXCAVATING EQUIPMENTS
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25. Discuss advantages and disadvantages of scrapper.
26. Differentiate between crawler mounted dozer and wheel mounted dozer.
27. Describe various types of trenching machines. Write advantages and disadvantages of Trenching machine.
28. Explain operation of power shovel. Also Discuss factors affecting output of power shovel.

ASSIGNMENT-11	HAULING, HOISTING & CONVEYING EQUIPMENTS
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29. What operations are involved for transportation of materials by a truck? Also discuss factors affecting cycle time of truck.
30. Enlist the different type of lifting equipment. Explain with sketches of Tower Crane.
31. Draw a neat sketch of belt conveyor system and describe its components.

ASSIGNMENT-12	OTHER EQUIPMENTS
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32. Classify compressors and explain any one in detail. Write the importance of air compressor.
33. What is concrete batching plant? Give a general layout plan for a concrete batching plant?
34. What is a tunnel boring machine? Discuss hard rock tunnel boring machine.
35. Discuss various types of rollers utilize in field compaction works.