

Seat
No.

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मापक- 008

Construction Techniques & Equipments (1080)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any five** questions.
5. Figure to the right indicates full marks.
6. Draw neat sketches wherever necessary.
7. Use of pocket calculator is allowed.
8. Assume suitable data if necessary.

1. a) List out different excavation equipments. Explain any one in detail. 8
b) Explain Dragline with its line diagram. 8
c) Enlist factors affecting output of dragline. 4
2. a) Explain working of 'Aggregate Crushing Plant' with neat sketch showing its various components. 12
b) Explain 'Tower Crane' with neat sketch. 8
3. a) Give brief classification of foundations Explain all types of pile foundations with its suitability 16
b) Short note on. 4
 - i) Angle of swing.
 - ii) optimum depth of cut.
4. a) Define coffer dams. Give its types. Explain any one type of coffer dam with neat sketch. 10
b) Explain various in detail RMC plant with neat sketch. 10

5. a) List various methods of rock drilling and explain any one in detail. 8
b) Explain factors affecting selection of dump truck. 8
c) What are advantages of rubber tyred over steel wheel rollers? 4
6. Write short note on **any five** of following. 20
i) Tilting of caissons and its remedial measures.
ii) Slip form technique of concreting in multi flue - chimney.
iii) Safety measure for construction equipments.
iv) Economic life of equipment.
v) Maintenance of equipment.
vi) Use of concrete pumps in high rise buildings
vii) Belt conveyors in aggregate crushing plant.
7. a) Explain Down Time Cost of Equipments with examples. 8
b) What are the different types of pile driving equipments?
Explain any one with sketch. 8
c) Short note on 'Work Cycle of Dumper'. 4
8. a) What are different methods of underwater concreting ?
Explain any one in detail. 8
b) Explain 'Well Foundation' with neat sketch. 8
c) Give advantages of crawler mounted tractors. 4
