

Seat  
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मंगल - 008

## Construction Techniques & Equipments

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.

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|----|----|---|----|
| 1. | a) | What are different types of cranes ? Explain any one with neat sketch and give its suitability.                           | 10 |
|    | b) | Explain Clamshell with neat sketch ? Also give applications of Clamshell.   | 10 |
| 2. | a) | Explain the factors affecting the output of Dragline ?  | 8  |
|    | b) | Explain the operation of Scraper ?  | 6  |
|    | c) | Enlist the factors affecting for selection of tractor Dozer.  | 6  |
| 3. | a) | What do you mean by Cofferdams ? What are its types explain in sequence the construction of Cofferdams with neat sketch ? | 12 |
|    | b) | Explain in detail 'Economic Life of Equipment'.   | 8  |
| 4. | a) | Explain 'Single acting Diesel Pile Hammer' with sketch and what precautions to be taken during execution of work ?        | 12 |
|    | b) | Explain Well Foundation with neat sketch showing its various components and give functions of each.                       | 8  |
| 5. | a) | What are different types of concrete mixers ? Explain any one in detail.  | 8  |

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| b) | What are the factors affecting the efficiency of concrete pumps ?                                       | 6  |
| c) | Enlist the methods of Underwater Concreting ? Explain any one in detail.                                | 6  |
| 6. | a) Explain in detail Concrete Pumps in High Rise Building. Also give its suitability.                   | 10 |
|    | b) Explain in sequence working of Aggregate Crushing Plant with neat sketch showing its various parts.  | 10 |
| 7. | a) Explain 'Down Time Cost' of Equipments with an example.  | 8  |
|    | b) What are different types of Hauling equipments ? Explain any one in detail.                          | 8  |
|    | c) Short note on 'Site Mobilization of RMC plant'.  | 4  |
| 8. | a) What do you mean by Depreciation ? What are its types ? Explain any one with its formula.            | 8  |
|    | b) Explain factors affecting selection of Drilling Equipment.   | 8  |
|    | c) Enlist different compaction equipments and factors affecting for selection of compaction equipments. | 4  |

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