



## 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. Answer sheet 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. Explain with neat sketch 'Ready Mix Concrete Plant'. List out the conditions under which you can make use of an RMC plant effectively on the site. Prepare the 'Check List' for the ordering information. You need to provide to RMC supplier. 20
  
  2. a) Explain the factors affecting selection of crane ? 7  
b) Explain the following terms. 9
    - i) Repair Cost.
    - ii) Labour Cost.
    - iii) Economic Life.
  
  - c) Draw a neat sketch of static tower crane. 4
  
  3. Write short note on **any five** of following. 20
    - i) Down Time Cost of equipment.
    - ii) Slip form paver.
    - iii) Maintenance of equipment.
    - iv) Aggregate Crushing Plant.
    - v) Work cycle of dumper.

- vi) Use of Concrete Pumps in high rise buildings.
- vii) Average value of equipment.
4. a) What are different methods of underwater concreting ? Explain any one with neat sketch. **8**
- b) What is dewatering ? State its purpose ? Explain single stage well point system with neat sketch. **8**
- c) Draw a neat sketch of 'Clamshell'. **4**
5. a) Explain in sequence the construction of Under Reamed Pile with neat sketch. **10**
- b) Define Cofferdams. Give its types. Explain any one type of coffer dam with neat sketch. **10**
6. a) Explain advantages of **8**
- i) Crawler Mounted tractors.
- ii) Wheel Mounted tractors.
- b) What are different types of compaction equipments ? Explain any one with its suitability. **8**
- c) Short note on 'Depreciation of equipments'. **4**
7. a) Explain Tilting of caissons and give its remedial measure. **8**
- b) List various methods of rock drilling and explain any one in detail. **8**
- c) Short note on 'Bucket fill factor'. **4**
8. a) What are different kinds of conveyors ? Explain any one in detail. **8**
- b) Short note on 'Equipment Management in construction project'. **6**
- c) Safety Measures for construction equipments. **6**

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