

**DIPLOMA IN CIVIL ENGINEERING**  
**DCLE(G) / DCLEVI**

**Term-End Examination, 2019**

**BCEE-052 : CONSTRUCTION EQUIPMENT**

**Time : 2 Hours]**

**[Maximum Marks : 70**

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**Note :** Answer **any seven** questions. All questions carry **equal** marks.

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1. List out the Construction Equipments to be used for the following tasks : [1x10=10]
- (a) Deep Boring
  - (b) Shallow Foundation Digging
  - (c) Breaking Rocks
  - (d) Lifting load in high rise buildings
  - (e) Lifting and Transporting Steel bars to short distance
  - (f) Cutting and Filling
  - (g) Levelling the fill

- (h) Compressing the fill
  - (i) Mixing concrete at site
  - (j) Improving density of concrete
2. What do you understand by "Mass Concrete" ? How will you keep/maintain the required lower temperature of such concrete while transporting and laying at Site ?  
[5+5=10]
3. Differentiate between the following : [2½x4=10]
- (a) Sheep foot rollers and Pneumatic tyred rollers
  - (b) Crawler tractor and Wheeled tractor
  - (c) Cutting machine and Bending machine
  - (d) Scrapper and Grader
4. Define the following terms : [2x5=10]
- (a) Depreciation
  - (b) Obsolescence cost
  - (c) Down time
  - (d) Scrap value
  - (e) Maintenance cost

5. How do you transport concrete from Batching Plant to Site ? Which equipment is used to pour the concrete at height ? Name the parts of the equipment and precautions to be taken. [2+2+6=10]
6. Why Pneumatic equipments are preferred over electric equipment in Construction Industry ? Give five reasons. [2x5=10]
7. Describe different causes of accidents in construction industry. Also describe different methods of reducing such accidents. [10]
8. How will you calculate the output of a Bulldozer ? Explain stepwise. What do you understand by cycle of operations and cycle time ? Explain. [5+5=10]
9. List out the ten factors affecting the output of earthmoving plant. [10]
10. What is a dragline ? Where it is used ? Explain where and why we should replace dragline by Power Shovel. [2+2+6=10]

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