

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

**Term-End Examination
December, 2013**

BCEE-052 : CONSTRUCTION EQUIPMENT

Time : 2 hours

Maximum Marks : 70

Note : Answer any five questions and question no.1 is compulsory.

1. Select one correct answer from the following : $7 \times 2 = 14$

(a) The most suitable equipment for close range of work is :

- (i) Back Hoe
- (ii) Clam shell
- (iii) Power shovel
- (iv) Drag line.

(b) Among the earth excavating equipment , which one has very good loading efficiency ?

- (i) Clam shell
- (ii) Drag line
- (iii) Back hoe
- (iv) Power shovel.

- (c) The main equipment used for pulling and pushing other equipment is :
 - (i) Bull dozer
 - (ii) Scraper
 - (iii) Tractor
 - (iv) Power shovel
- (d) In mountainous regions, the conveyor system best suited for covering long distance is :
 - (i) Belt conveyor
 - (ii) Bucket conveyor
 - (iii) Rope way
 - (iv) Cable way.
- (e) For placing concrete in remote and inaccessible places, we can use
 - (i) Tilting mixer
 - (ii) Truck mixer
 - (iii) Pan type mixer
 - (iv) Pneumatic concrete placer.
- (f) In mass concreting works, the type of vibrator used is
 - (i) Internal
 - (ii) External
 - (iii) Both internal and external
 - (iv) None of these.

(g) Jack Hammers can drill holes upto

(i) 2.5 - 3m

(ii) 4 - 5m

(iii) 1 - 2m

(iv) 4 - 6m

2. Discuss the need for mechanization in construction projects. 14
3. Describe in detail, the operation and application of the following types of excavating equipment with line diagram showing the basic parts. 7+7=14
- (a) Drag line
- (b) Clam shell bucket.
4. Discuss any two types of earth moving equipment in detail. Give sketches. 7+7=14
5. What do you mean by hauling and what are the different types of equipment used as hauling equipment; describe briefly? 14
6. Discuss the operation and application of different types of conveying equipment. 14
7. Compare the tilting and non - tilting type concrete mixers. What are the different factors which govern the production of a mixer? Explain briefly. 14

8. Write brief note on **any four** of the following : **4x3.5=14**
- (a) Scrapers
 - (b) Periodical Maintenance
 - (c) Preventive Maintenance
 - (d) Drilling Techniques
 - (e) Fork Lift Trucks
 - (f) Crawlers.
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