

01795

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

Term-End Examination

December, 2012

BCEE-052 : CONSTRUCTION EQUIPMENT

Time : 2 hours

Maximum Marks : 70

Note : Question 1 is compulsory. Attempt any four questions out of the remaining questions. Use of calculator is permitted.

1. Select the correct alternative from the given four choices in questions(a) to (g) below. **7x2=14**
- (a) Salvage value of an equipment is.
- (i) the initial cost
 - (ii) the cost at the end of life
 - (iii) equal to depreciation
 - (iv) none of the above
- (b) Which of the following may be used for transporting soil?
- (i) Trucks
 - (ii) Bulldozers
 - (iii) Hoe
 - (iv) All the above

- (c) Uncovered electricity wires at a construction site may lead to :
- (i) savings of money
 - (ii) saving of electricity
 - (iii) improved progress of work
 - (iv) accidents
- (d) Which of the following is/are important at a construction site?
- (i) Good drainage
 - (ii) Safety against thefts
 - (iii) First aid facility
 - (iv) all the above
- (e) Which of the following are important for quality control of construction?
- (i) tests for quality assessment
 - (ii) adequate supervision
 - (iii) proper drainage of site
 - (iv) all the above
- (f) Which of the following may affect the cost of construction ?
- (i) cost of equipment
 - (ii) cost of labour
 - (iii) cost of materials
 - (iv) all the above

- (g) Straight line method may be used for :
- (i) determining total cost of project
 - (ii) deciding the layout of drains
 - (iii) determining depreciation
 - (iv) none of the above
2. (a) What do you understand by rolling resistance of a construction equipment? Discuss giving examples. 7
- (b) Discuss use of crane in construction giving examples. 7
3. Discuss 'Sum of the years digits method' with an example. 14
4. Discuss how the speed, time of rolling, length of drum, number of drums, fraction of overlap and layer thickness affect number of passes required for a roller to compact a given volume of earth. 14
5. What are different types of dumpers, used in construction? How dumpers are different from trucks ? 14

6. What do you understand by 'Ready mixed concrete', abbreviated as RMC? Discuss the manner of its production and transportation. What would you do to maintain its workability during its transportation? 14
7. Write short notes on *any two* of the following : $2 \times 7 = 14$
- (a) Use of escalators
 - (b) Trenchers
 - (c) Cable ways
-