

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

Term-End Examination

June, 2013

BCE-024 : CONSTRUCTION TECHNOLOGY-I

Time : 2 hours

Maximum Marks : 70

Note : Question number 1 is compulsory. Attempt any four more questions from the remaining questions. All questions carry equal marks.

1. Choose the correct alternative in questions (a) to (g) : 7x2=14
- (a) The type of footing which is used to transmit heavy loads through steel columns is :
- (i) grillage foundation
 - (ii) raft foundation
 - (iii) well foundation
 - (iv) isolated foundation
- (b) The nominal size of modular bricks is
- (i) 19 cm × 19 cm × 9 cm
 - (ii) 20 cm × 10 cm × 10 cm
 - (iii) 22.9 cm × 11.4 cm × 7.5 cm
 - (iv) 20 cm × 5 cm × 5 cm

- (c) The end support of an arch is known as :
- (i) pier
 - (ii) soffit
 - (iii) abutment
 - (iv) crown
- (d) Generally, the minimum height of a door should not be less than :
- (i) 2.00 m
 - (ii) 1.80 m
 - (iii) 1.50 m
 - (iv) 1.00 m
- (e) The diagonal members fixed on standards are known as :
- (i) braces
 - (ii) ledgers
 - (iii) standards
 - (iv) putlogs
- (f) The ratio of D/B for shallow foundation should be :
- (i) 1
 - (ii) less than 1
 - (iii) more than 1
 - (iv) none of the above
- (g) The structures which helps us in maintaining the surface of the ground at different elevations on either side of the structure are known as :
- (i) cavity wall
 - (ii) partition wall
 - (iii) retaining wall
 - (iv) piers

2. (a) Describe different possible causes for settlement of a shallow column footing. 7
- (b) Explain the concept of design of foundations. 7
3. (a) What do you mean by a partition wall ? How is it different from a load bearing wall. 7
- (b) Describe various advantages of reinforced brickwork. 7
4. (a) Briefly describe various types of termites and their effects in buildings. 7
- (b) Discuss possible causes of dampness and its effects in a building structure. 7
5. (a) What do you mean by a lintel ? Explain various types of lintels. 7
- (b) Explain the procedure of checking the stability of an Arch. 7
6. (a) Explain the procedure of construction of Reinforced cement concrete floor. 7
- (b) Discuss the design criteria for doors provided in a room. 7

7. Write *short notes* on the following : **4x3½=14**
- (a) Combined Footing
 - (b) System of building structure
 - (c) Construction of brick arches
 - (d) Types of windows.
8. Differentiate between the following : **4x3½=14**
- (a) Stone and Brick Masonry
 - (b) Superstructure and substructure
 - (c) Floors and Floorings
 - (d) Brick layer's and Mason's Scaffolding.
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