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BCE-024

**DIPLOMA IN CIVIL ENGINEERING (DCLE(G))/
ADVANCED LEVEL CERTIFICATE COURSE IN
CIVIL ENGINEERING (DCLEVI/ACCLEVI)**

Term-End Examination, 2019

BCE-024 : CONSTRUCTION TECHNOLOGY-I

Time : 2 Hours]

[Maximum Marks : 70

Note : Attempt any five questions. Question No. 1 is compulsory. All questions carry equal marks.

1. Choose the correct alternative in questions (a) to (g) below : [7×2=14]

(a) Which one of the following is a deep foundation ?

- (i) Pier foundation
- (ii) Raft foundation
- (iii) Grillage foundation
- (iv) Strip foundation

(b) A partition wall is designed to carry :

- (i) Live loads

- (ii) No external loads
 - (iii) Imposed loads
 - (iv) Dead loads from roof
- (c) The depression in the face of a brick provided to form a key for holding the mortar is called :
- (i) Header
 - (ii) Stretcher
 - (iii) Frog
 - (iv) Fog
- (d) The end support of an Arch is called :
- (i) Stand
 - (ii) Pier
 - (iii) Soffit
 - (iv) Abutment
- (e) The type of window provided on the sloping side of a pitched roof is called :

- (i) Dormer window
 - (ii) Gable window
 - (iii) Lantern
 - (iv) Sloping window
- (f) The process of forcing cement slurry under pressure into the cracks, voids etc, present in the structure, is called :
- (i) Damp proofing
 - (ii) Grouting
 - (iii) Washing
 - (iv) Painting
- (g) The nominal size of modular bricks is :
- (i) 22.9 cm × 11.4 cm × 7.5 cm
 - (ii) 22.5 cm × 11.1 cm × 7 cm
 - (iii) 20 cm × 10 cm × 10 cm
 - (iv) 19 cm × 9 cm × 9 cm

2. (a) Describe various causes of settlement of foundations briefly. [7]
- (b) Under what circumstances would you adopt a raft foundation ? Explain the features of such a foundation. [7]
3. (a) Discuss different systems of building structures briefly. [7]
- (b) Describe the importance of good workmanship and quality control in masonry construction. [7]
4. (a) Explain the essentials of termite proofing in short. [7]
- (b) Explain possible causes and effects of dampness on the performance of a building structure. [7]
5. (a) Discuss the relative merits of lintels over arches. [7]
- (b) Show various elements of an Arch in a neat sketch. [7]
6. (a) Describe various factors based on which a particular type of floor construction is adopted. [7]

- (b) What is purpose of plastering ? Write names of different types of plasters adopted for external finishing of wall surfaces. [7]
7. (a) Draw a neat sketch of a door shutter. [7]
- (b) Classify doors based on working operations. [7]
8. Write short notes on the following : [4×3½=14]
- (a) Cavity Wall
- (b) Reinforced Brick Work
- (c) Door Frames
- (d) Scaf folding

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