

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

**Term-End Examination**

**00697 December, 2017**

**BCE-024 : CONSTRUCTION TECHNOLOGY – I**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** *Question no. 1 is compulsory. Attempt any four more questions out of questions number 2 to 8. All questions carry equal marks. Support your answers with neat sketches.*

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1. Choose the correct alternative from the given options.  $7 \times 2 = 14$
- (a) The type of foundation which is used to transmit heavy loads through a steel column is
- (i) Grillage foundation
  - (ii) Raft foundation
  - (iii) Well foundation
  - (iv) Isolated footing
- (b) A partition wall is designed to carry
- (i) Live loads
  - (ii) No external loads
  - (iii) Imposed loads
  - (iv) Partition loads from roofs

- (c) The process of keeping the brick-work wet on all exposed faces is called
- (i) Chasing
  - (ii) Cutting
  - (iii) Curing
  - (iv) Scaffolding
- (d) The inner surface of an arch is known as
- (i) Abutment
  - (ii) Soffit
  - (iii) Ring
  - (iv) Intrados
- (e) The horizontal dividing member in a window or door frame is called
- (i) Transom
  - (ii) Threshold
  - (iii) Louver
  - (iv) Jamb
- (f) The best location for DPC in case of buildings without basements lies at
- (i) Ground level
  - (ii) Plinth level
  - (iii) 15 cm above GL
  - (iv) 1 m above GL

- (g) The horizontal elements of a building structure which provides a level surface to support the occupants of a building, furniture, equipment, etc. are known as
- (i) Lintel
  - (ii) Arch
  - (iii) Floors
  - (iv) Roofs
2. (a) Discuss the various causes for settlement of foundations. 7
- (b) What are the various types of foundations ? Explain with the help of neat sketch. 7
3. (a) Explain the various functions served by walls in a building. 7
- (b) Discuss the three systems of building structures. 7
4. (a) Describe the various functions served by an Arch. 7
- (b) "RCC lintels have practically replaced all other materials used for lintels." Justify this statement. 7
5. (a) Discuss the design of doors in a room. 7
- (b) Explain the different types of window movements with their subdivisions. 7

6. (a) What do you mean by Floors ? Explain its components. 7
- (b) Describe the precautions that should be taken for preventing dampness in buildings. 7
7. Differentiate between the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) Shallow and Deep Foundations
- (b) Lintel and Arch
- (c) Superstructure and Substructure
- (d) Fixed and Pivoted Windows
8. Write short notes on the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) Partition Wall
- (b) Bearing Capacity of Soil
- (c) Door frames
- (d) Stability of an Arch
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