

**DIPLOMA IN CIVIL ENGINEERING**

**Term-End Examination**

**December, 2010**

01519

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

*Time : 2 hours*

*Maximum Marks : 70*

---

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

---

1. Choose the correct alternative : **2x7=14**
- (a) An assemblage of stone bricks laid with mortar is called :
- (i) stone masonry
  - (ii) stone pitching
  - (iii) stone soiling
  - (iv) stone assemblage
- (b) A grillage foundation :
- (i) is provided for heavily loaded isolated columns
  - (ii) is treated as spread foundation
  - (iii) consists of two sets of perpendicularly placed steel beams.
  - (iv) all the above

- (c) The suitable door for entrance in an air conditioned building is :
- (i) Revolving door
  - (ii) Louvered door
  - (iii) Collapsible door
  - (iv) Swinging door
- (d) The nominal size of modular bricks is :
- (i) 19 cm x 9 cm x 9 cm
  - (ii) 20 cm x 10 cm x 10 cm
  - (iii) 22.9 cm x 11.4 cm x 7.5 cm
  - (iv) 22.5 cm x 11.1 cm x 7.0 cm
- (e) In the construction of arches, sand box method is used for :
- (i) centring
  - (ii) a dual laying of arch work
  - (iii) striking of centring
  - (iv) none of the above
- (f) Dampness promotes and accelerate growth of :
- (i) ants
  - (ii) fungi
  - (iii) ants and fungi both
  - (iv) termites
- (g) The wall which sub-divides the space inside a building into rooms to serve different functions is known as :
- (i) Partition wall      (ii) Cavity wall
  - (iii) Retaining wall      (iv) Pier

2. (a) Explain the design of a wall footing. 7  
(b) Briefly describe the pier foundation with the help of a neat sketch. 7
3. (a) Explain the various functions served by walls in a building. 7  
(b) State the general principles to be observed during the construction of stone masonry. 7
4. (a) How would you check the stability of an arch ? Explain in brief. 7  
(b) What do you mean by scaffolding ? Explain its various components. 7
5. (a) Explain the procedure of post - construction antitermite treatment in buildings. 7  
(b) What do you understand by damp-proof construction ? Explain the materials used for damp - proof construction. 7
6. (a) Describe the various factors based on which a particular type of floor construction is adopted. 7  
(b) Classify various types of doors based on material used. Explain any one of them in detail. 7

7. Write short notes on the following : **4x3½=14**

- (a) Partition wall
- (b) Design of doors
- (c) Excavation for foundation
- (d) Block masonry

8. Differentiate between the following : **4x3½=14**

- (a) English and Flemish Bond
  - (b) Fixed and Pivoted windows
  - (c) Superstructure and Substructure
  - (d) Plastering and Flooring
-