

01255

**Diploma in Electrical and Mechanical
Engineering**

Term-End Examination

June, 2012

BCE-025 : ELEMENTARY CIVIL ENGINEERING

Time : 2 hours

Maximum Marks : 70

Note : Question no. 1 is compulsory. Attempt any four more questions out of question no. 2 to 8. All questions carry equal marks. Explain your answers with the help of neat and labelled sketches.

1. Choose the correct alternatives : 7x2=14
- (a) The structural member carrying compressive load in a truss is called as :
- (i) strut
 - (ii) tie
 - (iii) post
 - (iv) none of the above
- (b) The vertical face of a window or door opening which supports the frame is called as :
- (i) jamb
 - (ii) transome
 - (iii) mullion
 - (iv) rebate

- (c) The bond in which alternative courses of headers and stretchers used is called as :
- (i) english bond
 - (ii) flemish bond
 - (iii) stretcher bond
 - (iv) header bond
- (d) The part of structure which is above plinth level is called as :
- (i) sub structure
 - (ii) super structure
 - (iii) framed structure
 - (iv) none of the above
- (e) The depression cut in the frame to receive the door is called as :
- (i) rebate
 - (ii) louver
 - (iii) transom
 - (iv) none of the above
- (f) The commonly used flooring for residential building is :
- (i) rubber flooring
 - (ii) marble flooring
 - (iii) plastic flooring
 - (iv) none of the above
- (g) A hard surfaced straight path used for taking off and landing within a landing area is known as :
- (i) taxiway
 - (ii) runway
 - (iii) aprons
 - (iv) none of the above

2. (a) Discuss plate load test with labelled sketches. 7
(b) Discuss the applications of civil engineering to mechanical engineering related constructions. 7
3. (a) Explain methods of improving bearing capacity of soil. 7
(b) How is stone masonry classified ? 7
4. (a) Explain English bond with the help of neat sketches. 7
(b) Enlist methods of curing and explain any one. 7
5. (a) Enlist properties of concrete in harden stage and explain any one. 7
(b) State different types of steel connections and explain any one. 7
6. (a) Explain battened and ledged door with labelled sketches. 7
(b) Discuss the points to be considered for deciding the location of windows in a room. 7
7. (a) Describe the various components of an airport. 7
(b) Enlist types of flooring and explain any one with sketches. 7

8. Write short notes on *any four* of the following :

4x3½ =14

- (a) Workability of concrete
 - (b) Supervision of brick work
 - (c) Location of an airport
 - (d) Location of staircase
 - (e) Role of water cement ratio in concrete
-