

02022

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

December, 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 7. All questions carry equal marks. Explain your answers with the help of neat and labelled sketches.

1. Choose the correct alternative. 7x2=14
- (a) The part of the structure which is above ground level is called as :
- (i) Sub-structure
 - (ii) Super-structure
 - (iii) Multi-structure
 - (iv) None of the above
- (b) Vibrators should be penetrated in concrete in :
- (i) Horizontal direction
 - (ii) Vertical direction
 - (iii) Inclined direction
 - (iv) None of the above

- (c) The vertical face of a window or door opening which supports the frame is called as :
- (i) mullion
 - (ii) jamb
 - (iii) panel
 - (iv) transom
 - (v) None of the above
- (d) Slump test is performed to determine :
- (i) strength of concrete
 - (ii) workability of concrete
 - (iii) permeability of concrete
 - (iv) None of the above.
- (e) Trusses are economical for spans more than:
- (i) 3 m
 - (ii) 6 m
 - (iii) 20 m
 - (iv) 30 m
 - (v) None of the above
- (f) One bag of cement contains :
- (i) 35 kg
 - (ii) 50 kg
 - (iii) 75 kg
 - (iv) 100 kg
 - (v) None of the above

(g) The location for parking of aircrafts and loading and unloading of passengers and cargo is called as :

- (i) taxiway
- (ii) apron
- (iii) hanger
- (iv) runway
- (v) none of the above

2. (a) Enlist the divisions under civil engineering discipline. Explain in brief above geotechnical engineering. 7
- (b) Explain role of civil engineer in various construction activities. 7
3. (a) Define plasticity of concrete with sketches. 7
- (b) Explain plate load test with sketches. 7
4. (a) Discuss the classification of rubble masonry. 7
- (b) Enlist the various points to be observed while supervising the brick masonry. 7
5. (a) Explain properties of concrete in plastic stage. 7
- (b) What is meant by bulking of sand ? 7

6. (a) Explain collapsible door with sketch. 7
(b) What are the factors to be considered while planning location of a door in a room? 7
7. Write short notes on *any four* of the following :
- (a) Curing of concrete **4x3½ =14**
(b) Waterproofing
(c) Airport layout
(d) Surface drainage
(e) Terrazo flooring
(f) Top hung window
-