

**Diploma in Electrical and Mechanical
Engineering**

Term-End Examination

December, 2006

**BCE-025 : ELEMENTARY CIVIL
ENGINEERING**

Time : 2 hours

Maximum Marks : 70

Note : Answer **all** questions. All questions carry equal marks.

1. (a) Fill in the blanks : 7×1=7
- (i) A soil mass is a _____ system consisting of solid particles, water and air.
 - (ii) The portion of the structure between the surface of the surrounding ground and level of the floor immediately above the ground is known as _____ .
 - (iii) While laying bricks in a wall, frog of the brick must be kept _____ .
 - (iv) One bag of cement is _____ kg.

- (v) _____ is the horizontal dividing member in a window or door frame.
- (vi) Airports are classified as _____ and _____ airport.
- (vii) Concrete flooring is most commonly used where _____ wearing surface is required.
- (b) State whether the following statements are *true* or *false* : 7×1=7
- (i) Structure is defined as an assembly of members, which can take and transfer the load to the ground or hard strata below it.
- (ii) Trusses are uneconomical for spans greater than 6 m.
- (iii) In case of perfectly saturated soil, the voids are filled completely with water.
- (iv) Frogs made in the bricks are to reduce weight of the brick.
- (v) Segregation is the property of concrete at hardened stage.
- (vi) The site of an airport should not be connected by a national or state highway.
- (vii) The window provided in the gable end of a pitched roof is called as gable window.

5. Write short notes on any **four** of the following : $4 \times 3 \frac{1}{2} = 14$

- (a) Components of an airport
- (b) Types of flooring
- (c) Bleeding of concrete
- (d) Bulking of sand
- (e) Plate load test
- (f) Types of truss