

**Diploma in Civil Engineering / Diploma  
in Electrical & Mechanical Engineering**

**Term-End Examination**

**June, 2008**

**BET-015 : ENGINEERING MATERIALS**

**Time : 2 hours**

**Maximum Marks : 70**

**Note :** Question number 1 is **compulsory**. Attempt any **four** more questions from the remaining six questions. All questions carry equal marks.

**1. Choose the correct alternative for the following questions ;**

**7×2=14**

- (a) The rocks which are formed by gradual deposition, are
- (i) sedimentary rocks
  - (ii) igneous rocks
  - (iii) metamorphic rocks
  - (iv) None of these
- (b) The standard size of masonry bricks, is
- (i) 18 cm × 8 cm × 8 cm
  - (ii) 19 cm × 9 cm × 9 cm
  - (iii) 20 cm × 10 cm × 10 cm
  - (iv) 21 cm × 11 cm × 11 cm

- (c) The property by virtue of which lime sets under water, is known as
- (i) slacking
  - (ii) setting
  - (iii) hydraulicity
  - (iv) calcining
- (d) The base material for distemper, is
- (i) chalk oil
  - (ii) linseed oil
  - (iii) kerosene oil
  - (iv) acetate of lead
- (e) Initial setting of cement is caused due to
- (i) Tri calcium silicate
  - (ii) Di calcium silicate
  - (iii) Tri calcium aluminate
  - (iv) Tetra calcium aluminoferrite
- (f) Percentage of silica in window glass, is
- (i) 40 to 45
  - (ii) 50 to 55
  - (iii) 60 to 65
  - (iv) 70 to 75
- (g) The steel used in RCC work, is
- (i) Stainless steel
  - (ii) Mild steel
  - (iii) High carbon steel
  - (iv) Iron

2. (a) Write down the characteristics of good Building Stones in detail. 7
- (b) Write down the classification and characteristics of bricks as per Bureau of Indian Standards (BIS). 7
3. (a) Write down the characteristics of good timber. 7
- (b) Describe the constituent parts of paint and their functions. 7
4. (a) Describe the manufacturing of cement by wet process. 7
- (b) Write down the functions of cement ingredients. 7
5. (a) Write down the qualities of good sand. 7
- (b) Write down in the tabular form Recommended Mixes of concrete. 7
6. (a) Describe various properties of glass in detail. 7
- (b) Write down the comparison between Fat lime and Hydraulic lime. 7
7. Write short notes on any **four** of the following :  $4 \times 3 \frac{1}{2} = 14$
- List of Acoustics material
  - Slump test of concrete
  - Uses of steel in construction work
  - Causes of corrosion
  - Standard tests of cement
  - Seasoning of timber

