



SE-6745

B. E. III (Civil) (Sem. V) Examination

April / May – 2011

Building Construction

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशिक निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.		Seat No. :	
Name of the Examination :		<input type="text"/>	
<input type="text" value="B. E. 3 (Sem. 5) (Civil)"/>		<input type="text"/>	
Name of the Subject :		<input type="text"/>	
<input type="text" value="Building Construction"/>		<input type="text"/>	
Subject Code No. : <input type="text" value="6"/> <input type="text" value="7"/> <input type="text" value="4"/> <input type="text" value="5"/>		Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
		<input type="text" value="Student's Signature"/>	

- (2) All questions are compulsory.
- (3) Figures to the right indicates full marks.
- (4) Draw neat and labelled sketch wherever required.
- (5) Assuming missing data suitably if necessary.
- (6) Draw sketches whenever necessary.

1 (a) Fill in the blanks : 5

- (i) The foundation which consists of a thick rein forced cement slab covering whole area to support heavy concentrated structural lands, is known as _____.
- (ii) _____ is surface of wall exposed to weather.
- (iii) The soil below the base of the foundation is called _____.
- (iv) _____ is a triangular shaped portion of masonry at the end of a sloped roof.
- (v) Masonary constructed using two or more building materials is called _____.

- (b) Say true or false : 5
- (i) In made up ground having a low value of its bearing power, heavy concentrated structural loads are generally supported by providing half footing.
 - (ii) In English bond, the heading course should start with a queen closer.
 - (iii) The exterior angle between other faces of a wall is known as junction.
 - (iv) The stone masonry of finally dressed stones laid in cement or lime, is called dry Rubble masonry.
 - (v) The maximum bearing capacity of soil is that of hard rocks.
- (c) List down methods for site exploration. Discuss the plate load test with sketches. 7
- 2** Attempt any two : 7
- (a) What are bonds in brick masonry ? Describe Garden wall bond and Raking bond.
 - (b) Discuss factors affecting selection of flooring. 7
Describe brick flooring with respect to its construction steps, advantages, disadvantages and application.
 - (c) Discuss different types of arches based on its material. Explain with neat sketch segmental arch. 7
- 3** (a) 'Black cotton soil is worst soil for civil engineering construction work.' Discuss and draw a footing used in black cotton soil. 7

OR

- (a) Draw a section of a wall (masonry) through window from foundation bottom to parapet top for a residential building. 7
- (b) Write short notes on any **three** : 12
 - (i) Detail of beam column joint
 - (ii) Flat arch
 - (iii) Ashlar fine masonry
 - (iv) Concrete ribbed floor
 - (v) Trenching of trenches.

- 4 (a) Define following terms : (any five) 5
- (1) Form work
 - (2) Winders
 - (3) Rafter
 - (4) Putlog
 - (5) Hold fast
 - (6) Vehicle
- (b) What are the advantages of using steel form work instead of wooden form work ? 4

OR

- (b) Explain raking shore with a neat sketch. What are various points to be noted, while constructing raking shore ?
- 5 Attempt any **three** of following : 21
- (1) Draw a neat sketch of components of door and explain each term.
 - (2) Describe the constituents of paint, mentioning the specific function of each.
 - (3) Describe with sketch doglegged staircase.
 - (4) Differentiate clearly between brick-layer's scaffolding and steel scaffolding.
 - (5) Draw a neat sketch and explain king post truss.
- 6 Write short notes on : (any **five**) 20
- (1) Dormer window
 - (2) Rolling shutter door
 - (3) Bifurcated staircase
 - (4) Cement based paint
 - (5) Types of pointing
 - (6) Mansard roof truss.