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# SF-8176

## B. E. II (Sem - IV) (Civil) Examination

**May / June – 2011**

## Building Construction

*(New Syllabus)*

Time : Hours] [Total Marks :

**Instructions :**

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
**Fillup strictly the details of ☛ signs on your answer book.**

Name of the Examination :

☛ **B. E. II (Sem - IV) (Civil)**

Name of the Subject :

☛ **Building Construction (New)**

☛ Subject Code No. : **8 1 7 6** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Attempt all questions.

(3) Figure to the right indicate marks.

(4) Draw neat and labelled sketch wherever required.

**1** (a) Define the following : **5**

(i) Safe bearing capacity

(ii) Header

(iii) Quein

(iv) Brick masonry

(v) Crown.

(b) State true or false : **5**

(i) The black cotton soil undergoes volumetric changes.

(ii) The brick laid with its length parallel to the face of a wall, is known as a header.

(iii) The frog of the buick must be kept downward while laying bricks in a wall.

(iv) The lowest bearing capacity of a soil is that of moist day.

(v) A floor constructed with 3mm marble chips, is known as terrazzo floor.

(c) Discuss comparision between stone masonary and buick masonary. Explain $1\frac{1}{2}$ buick thick wall english bord. 7

**OR**

(c) What is bearing capacity of soil ? Discuss in brief the various methods of improving the bearing capacity of soil. 7

**2** Attempt any two.

(a) Block cotton soil is worst soil for civil engineering construction work. Discuss draw a footing used in black cotton soil. 7

(b) Draw a section of a wall (masonary) through window from foundation bottom to parapit top for a resedential building. 7

(c) Discuss different types of arches based on its material. Explain segmental arch. 7

**3** (a) State the various types of upper floors. Mention the situation where each type may be used. 7

**OR**

(a) What are the different types of timber floors ? Describe single and double Joist timber floor with neat sketch. 7

(b) Write short notes on any three 12

(i) Selection of flooring mateiral.

(ii) Brick arches.

(iii) Advantages of hollow concrete block masonary.

(iv) Causes of failure of foundation.

(v) Methods of improving bearing capacity of soil.

4 (a) Define following term (nay five). **5**

(1) Tread
(2) Mullion
(3) Purlin
(4) Hold fast
(5) Standard
(6) Flight

(b) Explain in brief, what are the objectives of providing plaster ? **5**

**OR**

(b) Describe with neat sketch bifurcated staircase. **5**

5 (a) Describe needle scaffolding, with sketches and in which circumstances it is provided. **8**

**OR**

Describe the advantages and disadvantages of wooden and steel formwork.

(b) Draw neat sketch of Queen-post truss and explain. **6**

(c) Discuss various specifications considered made for planning of staircases. Illustrate the different types of stair cases generally used, indicating their suitability for specific use. **6**

6 (a) Differentiate between following. (Any two) **8**

(1) Corner and bay window
(2) Helical stair and Spiral stair
(3) Lime and cement plaster.

(b) Write short note on (any three) **12**

(1) Enamel paint
(1) Open well stair
(2) Couple close roof
(3) flush door
(4) Types of pointing

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