24065

B. Tech. 3rd Semester (Civil-Engg.) Examination – December, 2012

BUILDING CONSTRUCTION MATERIALS

Paper : CE-203-F

Time : Three Hours]　　　　　[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions.

1. (a) Draw typical sketches, showing the following, constructed of stone masonry :　　2 × 5 = 10

    (i) Corbel

    (ii) Cornice

    (iii) Jambs

    (iv) Coping

    (v) Threshold

(b) Explain Double Flemish Bond in one brick thick wall with sketches showing the following : Plan for

(i) 1, 3, 5 .... courses. 5

(ii) 2, 4, 6 .... courses. 5

2. (a) Enumerate different types of partition walls. Explain with sketch(es) any one type of partition wall suitable for domestic buildings. 10

(b) Explain with the help of sketch(es), combined footings. 10

3. (a) Explain the method of constructing cement concrete flooring. 10

(b) Describe in short, with sketches, solid core flush door or laminated core flush door. 10

4. (a) Explain various methods used for damp proofing. 10

(b) Describe the method of damp proofing for basement in an area having high water table. Give a neat sketch. 10

5. (a) Write short notes on :

(i) Reflection of sound and reflecting surfaces. 5

(ii) Reverberation. 5

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(b) What do you understand by absorption of sound ? How does this take place ? Enumerate various absorptive surfaces. ·10

6. (a) What are the desirable qualities of building stones ? Discuss in brief. 10

 (b) What are the usual tests which may be conducted to confirm the suitability of bricks ? 10

7. (a) Define the following :

 (i) Calcination

 (ii) Quicklime

 (iii) Setting of lime

 (iv) Slaking

 (v) Slaked lime $2 \times 5 = 10$

 (b) Explain the composition of Ordinary Portland Cement. Explain the functions of each ingredient of cement. 10

8. (a) What is a plywood ? What are its advantages ? 10

 (b) Describe briefly the following :

 (i) Cement paint,

 (ii) Emulsion paint. $5 \times 2 = 10$

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