Total No. of printed pages = 3

24/1/19

CE 131303

Roll No. of candidate

2019

B.Tech. (CE) 3rd Semester End-Term Examination

BUILDING CONSTRUCTION

(New Regulation)

(w.e.f. 2017-2018)

Full Marks – 70   Time – Three hours

The figures in the margin indicate full mark
for the questions.

Answer Question No. 1 and any *FOUR* from the rest.

1.   Answer the following : (MCQ/Fill in the blanks)

$(10 \times 1 = 10)$

(i)   The brick laid with its length parallel to the face of the wall is known as —————.

(ii) The minimum thickness of a wall in stone masonry should not be less than —————.

(iii) The projecting part of the tread beyond the face of the riser is called—————.

(iv) In a public building the stairs should be located near the————— of the building.

[Turn over

(v) The arrangement of supports provided underneath the existing structure disturbing its stability, is known as——————.

(vi) The type of stone masonry commonly adopted in the construction of residential building is ——————.

(vii) The temporary rigid structure having platforms raised up as the building increases in height is called——————.

(viii) A bat is the portion of a——————.

(ix) In designing a stair, the sum of going (in cm) and twice the rise (in cm) should be equal to ——————.

(x) When two or more footings are connected by a beam, it is called——————.

2. (a) Explain in details the utility of the masonry units and floor structures of a building.   (10)

   (b) What are the various types of drawings required for the construction of a building? Explain in detail .   (5)

3. (a) Explain in detail the concept of orientation of a building.   (5)

   (b) What are the circumstances for use of a Mat foundation? Explain.   (5)

   (c) Explain the applications of Well Foundations.   (5)

4. (a) Explain English Bond with neat sketches.   (5)

   (b) Discuss in detail Flint Walling with neat sketches.   (5)

   (c) Write about the circumstances under which a raking shore is provided.   (3)

   (d) Why shuttering is provided in a building?   (2)

5. (a) Explain single scaffolding with neat sketches. (5)

   (b) Plan a stair case for a residential building in which the vertical distance between each floor is 3.36 m. The size of the stair hall is limited to 4.5 m × 3 m. (10)

6. (a) Explain the method of construction of Terrazzo Flooring. (10)

   (b) Explain the various parts of a roof truss. (5)

7. (a) Draw the king post truss and label its various components. (5)

   (b) Explain framed door. (3)

   (c) Write briefly about clerestorey windows. (3)

   (d) Draw the sketch of a fan light. (4)