

**B.Tech. Civil (Construction Management) /
BTCLEVI**

Term-End Examination

December, 2015

00951

**ET-521(A) : PLANNING AND CONSTRUCTION OF
BUILDINGS**

Time : 3 hours

Maximum Marks : 70

Note : *There are two parts in the question paper. Part A is compulsory. Attempt any four questions from Part B carrying equal marks.*

PART A

1. Prepare a suitable proportionate and dimensioned plan of a single-storey residential building whose different inputs are given as below :
 - (a) Two bedrooms
 - (b) One living room
 - (c) One dining room
 - (d) One kitchen
 - (e) Toilet
 - (f) One bathroom
 - (g) One guest room

Local municipal rules provide :

- (i) Total covered area should not exceed $\frac{2}{3}$ rd of the plot area.
- (ii) Set-back in front : 4.0 m
Set-back in rear : 3.5 m
Set-back on both sides : 2 – 3 m

Also find out the size of the plot.

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PART B

2. (a) What do you understand by Mercantile Buildings, Business Buildings and Hazardous Buildings ? Explain with proper examples. 5
- (b) Discuss briefly Igneous rocks, Sedimentary rocks and Metamorphic rocks with examples. 5
3. (a) Define the following : 5
Landing, Ventilator, Ledge, Mezzanine floor, Roominess
- (b) Describe briefly the various methods available for flooring in rural houses. 5
4. (a) Describe briefly the various methods to lower the sub-soil water level for the purpose of excavation of foundation. 5
- (b) Discuss briefly the various tests carried out to ascertain the quality of bricks. 5
5. (a) Discuss various considerations to be kept in mind while deciding the location of windows in a room. 5
- (b) What are the advantages of RCC for construction of a staircase when compared to materials like wood, steel, stone, etc. ? 5

6. (a) What are the functions of Paving ? Describe any two types of paving materials. 5
- (b) What is thermal insulation ? State briefly about vapour insulation, and draw a neat sketch for insulation of a wall. 5
7. Write short notes on any *four* of the following : $4 \times 2 \frac{1}{2} = 10$
- (a) Terracotta Facing
- (b) Raft Foundation
- (c) Floor Area Ratio
- (d) Cement Mortar
- (e) Waterproofing of Mud Wall
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