

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

Term-End Examination

June, 2018

00783

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

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. A plot of land measures 12 m × 24 m. The front road is 18 m wide facing East. Service lane is in the rear measuring 9 m. Prepare a suitable plan of a three (03) bedroom residential building keeping in mind the restrictions imposed by the local body as maximum covered area to be 75% of total plot area with minimum setback of 3 m in the front and the rear of the building.

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2. (a) Give the classification under which the following buildings fall : 7×1=7
- (i) Hotels
 - (ii) Custodial institutions
 - (iii) Gymnasium
 - (iv) Sale of merchandise
 - (v) Garages
 - (vi) Offices
 - (vii) Laundries
- (b) Describe the various steps involved in the planning process of a building. 7
3. Determine the minimum area of a plot for a three-storied residential building having four flats of 140 m² area on each floor, for the given data : 14
- (i) Area for staircase and access should not exceed 25% of the ground floor area of the building, and
 - (ii) FAR to be restricted to 1.50.
4. (a) Explain the major roadblocks in the way of feasible solutions to rural housing. 7
- (b) Describe the causes of settlement of foundation. 7



5. (a) Explain the different functions served by walls in a building. 7
- (b) Describe the construction practices of brick masonry. 7
6. (a) Explain the design of doors in a room. 7
- (b) Describe the various types of window movements. 7
7. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Bearing capacity of soil
- (b) Grillage foundation
- (c) Interior finishing material
- (d) Thermal comfort
8. Differentiate between the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Shallow and Deep foundation
- (b) Hinged and Pivoted window movement
- (c) Foundation and Superstructure
- (d) Glass and Glazing
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