

B.Tech. Civil (Construction Management)
BTCLEVI

Term-End Examination
December, 2012

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 calculator is allowed.

1. A plot of land measures 12m x 25m. The front road is 24m wide facing north. Service lane is on the rear measuring 9 m. 14
Prepare a suitable plan of three bedroom residential house keeping in mind the restrictions imposed by local municipality as maximum covered area to be 75% of total plot area with minimum set back of 2m in front and rear of the house.
2. (a) Give the classification under which following buildings fall : 7x1=7
- | | |
|---------------------|----------------|
| (i) Dormitories | (ii) Jail |
| (iii) Museums | (iv) Offices |
| (v) Shops | (vi) Laundries |
| (vii) Transit sheds | |

- (b) Describe briefly the various steps involved in the planning process of building. 7
3. Determine the minimum area of a plot for three-storied residential building having four flats of 182m² area in each floor for the given data:- 14
- (a) Area for staircase and access should not exceed 25% of the ground floor area of the building, and
- (b) FAR to be restricted to 1.50.
4. (a) Describe the minimum standards for Rural Housing suggested by NBO. 7
- (b) Describe the causes of settlement of foundation. 7
5. (a) Describe the purpose of providing bond in the construction of a brick work. 7
- (b) Explain the design criteria of stairs in a building. 7
6. (a) Explain the various points considered for deciding the location of doors in a room. 7
- (b) Discuss the influence of orientation of a building on thermal comfort. 7

7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$
- (a) Raft foundation
 - (b) Reinforced Brick Masonry
 - (c) Rural Sanitary Latrines
 - (d) Thermal Insulation
8. Differentiate between the following : $4 \times 3\frac{1}{2} = 14$
- (a) Shallow and Deep foundations
 - (b) English and Flemish Bond
 - (c) Hinged and Pivoted window movement
 - (d) Revolving and Sliding Doors
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