

B.Tech. Civil (Construction Management)**Term-End Examination****June, 2008****ET-521(A) : PLANNING CONSTRUCTION
OF BUILDINGS***Time : 3 hours**Maximum Marks : 70*

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

1. A plot of land measures 9 m × 18 m. The front road is 12 m wide facing north. Service lane is on the rear, measuring 6 m. Prepare a suitable plan of a three-bedroom residential building keeping in mind the restrictions imposed by local body as maximum covered area to be 75% of total plot area with minimum set-back of (one) 1 m in front and rear of the building. 14

2. (a) Give the classifications under which the following buildings fall : 7×1
 - (i) Custodial institutions
 - (ii) Dormitories
 - (iii) Stores

- (iv) Dairies
 - (v) Garages
 - (vi) Power plants
 - (vii) Banks
- (b) Describe the principle components of an education building and their functions. 7
3. Determine the minimum area of a plot for a three-storied residential building having four flats of 162 m^2 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 is to be restricted to 1.50.
4. (a) Describe the minimum standards for rural housing suggested by NBO. 7
- (b) Briefly discuss the governing criterion to determine the depth of foundation at different levels in clayey soil. 7
5. (a) Describe the various points to be considered while locating windows in a room. Normally what percentage of area is provided for window opening? 7
- (b) How would you ensure good workmanship in masonry construction? 7

6. (a) How does orientation influence thermal comfort in a building ? 7
- (b) Briefly describe the various types of stairs. 7
7. Write short notes on the following : $4 \times 3 \frac{1}{2}$
- (a) Orientation of building
- (b) Functions of paving material
- (c) Deep foundation
- (d) Efflorescence

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ALICE