

B.Tech. Civil (Construction Management)

Term-End Examination

June, 2010

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

00944

Time : 3 hours

Maximum Marks : 70

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

1. Draw a suitable proportionate dimensioned plan 14
of a single storey residential building having the
following elements within a municipal area limits.
- (a) Two Bedrooms (one with all attached bath)
 - (b) One Dining Hall
 - (c) One living room
 - (d) One common toilet
 - (e) Kitchen
 - (f) One small verandah

Show opening direction of the doors assume all standard dimensions. Find out plot area as per the standard building rules under municipal corporation.

2. (a) What are the factors to be considered under environmental impact study for any construction project ? 7
- (b) Define contour. Draw a typical contour map of an Island having overhanging cliff considering sea level as base. 7
3. (a) List out broad functional elements for a School Building of the type you like to plan. 7
- (b) NBO has made available the following data regarding percentage distribution of households with reference to Wall materials. Draw Pie-charts for Rural and Urban households. 7
- | Wall material | Rural | Urban |
|----------------------|-------|-------|
| (i) Grass leaves, | | |
| Wood and Bamboo | 13 | 8 |
| (ii) Mud and Unburnt | | |
| Bricks | 57 | 22 |
| (iii) Burnt Bricks | 17 | 54 |
| (iv) Stone | 10 | 8 |
| (v) Others | 3 | 8 |
4. (a) Explain deep foundations. Describe briefly the use and characteristics of steel piles. 7
- (b) Why cement mortar is preferred to lime-mortar ? Give a comparative table. 7

5. (a) Classify the Doors from their operation point of view and give short description of any two with line diagram. 7
- (b) Describe briefly with sketches about 'stone-coping' and 'taree piece cornice'. 7
6. (a) If the vertical distance between the floors is 3 meters, draw a layout plan of the stairs in a stair-case area measuring 1.5 m x 4.5 m. 7
- (b) Describe briefly the Insulation of Cold storage. 7
7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$
- (a) Reinforced Cement Concrete (RCC)
- (b) Efflorescence
- (c) Lofts
- (d) Floor-Area Ratio (FAR)
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