

**II B.Tech II Semester Supplementary Examinations,
November/December 2005
BUILDING PLANNING (DESIGN AND DRAWING)
(Civil Engineering)**

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. Write short notes on the following:
 - (a) Building bye-laws.
 - (b) Classification of buildings.
 - (c) Open spaces in buildings. [6+5+5]
2. (a) Suggest the minimum area requirement for the following areas in residences:
 - i. Habitable room
 - ii. Kitchen
 - iii. Bath Room
 - iv. Stair Case [2+2+2+2]
(b) What minimum height do you recommend for
 - i. Plinth
 - ii. Habitable rooms
 - iii. Head room for stair case
 - iv. Depth of foundation [2+2+2+2]
3. Discuss in detail the important factors that should be kept in mind while planning a building. [16]
4. Discuss the practical design considerations to be followed in buildings in:
 - (a) Hot dry zones.
 - (b) Hot humid zones.
 - (c) Cool zones. [6+5+5]
5. Briefly explain the principles of composition of buildings, emphasizing scale and proportion. [16]
6. Write short notes on the characteristics of the following house types:
 - (a) Apartments .
 - (b) Row houses .
 - (c) Independent and semi-detached houses. [5+5+6]

7. Design an village panchayat office for the following requirements and draw a line diagram .

- (a) Entrance and waiting room .
- (b) Meeting hall to accommodate 40 people.
- (c) V.P. President Chambers with attached toilet.
- (d) V.P. Secretary Chambers with attached toilet .
- (e) Office for 10 staff .
- (f) Toilet blocks - 2 Nos.
- (g) Necessary provision to be made for corridors.

[16]

8. Note: The following specifications may be taken unless otherwise specified in the individual line plans.

The line plan in the figure below shows the internal dimensions in mm. Draw to a suitable scale the following views:

- (a) Plan
- (b) Sectional Elevation

Select suitable positions and sizes of doors and windows

According your choice, if it not given in the line plans. The specifications for the buildings are as follows:

- i. Foundation depth below ground level.....1.1.m
- ii. Plinth height above ground level1.0 m
- iii. Mansonry in foundation and up to plinth – Uncoused rubble masonry in lime mortar.....1:2.
- iv. Mansonry in superstructure -1½ brick in cement mortar 1:6
- v. Flooring – 25 mm thick mosaic tiles on 100mm thick 1:4:8 concrete bed.
- vi. Doors – Timber doors fully paneled at suitable places and of suitable sizes.
- vii. Windows – Timber fully glazed at suitable places and of suitable sizes.
- viii. Roof:
 - A. for sloped roof – A.C.sheets over timber purlins or mangalore tiled roof.
 - B. for flat R.C.C.roof – 120mm thick R.C.C.slab of 1:2:4 with 80mm thick wearing course.

Assume any other suitable data wherever required and mention the same in the drawing.(figure1)

[12+4]



Figure 1:
