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2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS
BUILDING PLANNING DESIGN & DRAWING
(CIVIL ENGINEERING)

NOVEMBER 2005

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. Differentiate between the regulations that have to be followed in Group Housing Scheme from those for independent residences. [16]

3. Explain in detail how the orientation of building helps to get good ventilation to a building. [16]

4. Sketch a single line plan for a residential building and show the position of doors and windows for good ventilation. [16]

5. List out the principles of architectural composition and explain, in detail, any two of them with neat sketches, if required. [8+4+4]

6. (a) Draw a bubble diagram/chart to explain the circulation pattern in a 3-bedroomed house, with separate living and dining room, kitchen, store, puja, three toilets and a utility room.

(b) How would you minimize circulation area in the above house? [8+8]

7. Design an health club for the following requirements and draw a line diagram.

(a) Reception with waiting room -1No.

(b) Managers room -1 No.

(c) Coaches room -2Nos.

(d) Dressing room -2Nos.

(e) Gym rooms -2Nos.

(f) Toilet blocks -2 Nos.

(g) Refreshment hall -1No. [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. Masonry in foundation and up to plinth – Uncoursed rubble masonry in lime mortar.
.....1:2.
- iv. Masonry in superstructure -1 1/2 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.

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