

4E4115

Roll No. _____

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4E4115

B. Tech. IV Sem. (Main/Back) Exam., June/July-2014

Civil Engg.

4CE5A Building Planning

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

Instructions to Candidates:-

Attempt any five questions, selecting one question from each unit. All Questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Units of quantities used/ calculated must be stated clearly.

Use of following supporting material is permitted during examination.

1. _____

2. _____

UNIT-I

Q.1. (a) Discuss the different types of buildings in detail.

(b) Discuss the different methods of drawing sun chart. [8+8]

OR

Q.1. (a) Explain the criteria of site selection for a building and what do you mean by site plan.

(b) Discuss various sun shading devices. [8+8]

UNIT-II

- Q.2. (a) Explain the various climate modulating devices and their importance.
- (b) Explain the orientation of a building. Discuss the various factors affecting orientation of building. [8+8]

OR

- Q.2. (a) What is the requirement of building by laws? Describe various regulations regarding covered area and open spaces.
- (b) What is thermal comfort? Discuss uses of bi-climatic chart. [8+8]

UNIT-III

- Q.3. (a) Explain the term principles of planning. Discuss the various factors affecting the principles of planning. [8]
- (b) Write down the various factors considered in 'Vaastushastra'. [8]

OR

- Q.3. (a) Design a residential building on a plot of 10m × 20m. Assume suitable data. [10]
- (b) Draw neat sketch and describe 'Aspects and Sun-diagram'. [6]

UNIT-IV

- Q.4. Design and draw the plan of a Bank on a plot of 45m × 70m. Road is on the North side of the plot. [16]

OR

Q.4. Draw & design a residential house, having the following arrangements:-

(i) Bed room - 1: Size of 12' 6" × 10' 6"

(ii) Bed room - 2 ; Size of 10' × 16' 6"

(iii) Dining room : assume size

(iv) Living room : assume size

(v) Varendra : Width of 10'

[16]

UNIT-V

Q.5. (a) Explain the different types of doors with sketches.

[8]

(b) Write short note on noise control.

[8]

OR

Q.5. (a) Discuss in detail the acoustics and sound insulation of a building.

[10]

(b) Write short note on Fire fighting provision.

[6]

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