

**II Year II Semester**  
**Code: 17CE401**

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<b>3</b>	<b>1</b>	<b>0</b>	<b>3</b>

### **BUILDING PLANNING AND DRAWING**

#### **Objectives of the course:**

1. Initiating the student to different building bye-laws and regulations.
2. Imparting the planning aspects of residential buildings and public buildings.
3. Giving training exercises on various signs and bonds and different building units.
4. Imparting the skills and methods of planning of various buildings.

#### **Course outcome:**

Upon successful completion of the course:

1. Student should be able to understand the building bye laws.
2. Student should be able to understand minimum standards and components required for Residential buildings
3. The student should be able to plan public buildings like educational institutions, hospitals etc.,.
4. The student can able to identify different signs, conventions and bonds
5. The student should be able to understand about different types of doors, windows, roofs
6. The student is expected to learn the skills of drawing building elements and plan the buildings as per line diagrams.

### **SYLLABUS**

#### **UNIT I**

##### **Building Byelaws and Regulations:**

Introduction- terminology- objectives of Building byelaws- floor area ratio- floor space index- principles under laying building byelaws- classification of buildings- open space requirements – built up area limitations- height of buildings- wall thickness – lightening and ventilation requirements.

#### **UNIT II**

##### **Residential Buildings:**

Minimum standards for various parts of buildings requirements of different rooms and their grouping- characteristics of various types of residential buildings and relationship between plan, elevation and forms and functions

**UNIT III :Public Buildings:**Planning of educational institutions, hospitals, dispensaries, office buildings, banks, industrial buildings, hotels and motels, buildings for recreation, Landscaping requirements.

**UNIT IV Sign Conventions And Bonds:**Brick, Stone, Plaster, Sand Filling, Concrete, Glass,Steel, Cast Iron, Copper Alloys, Aluminum Alloys etc., Lead, Zinc, Tin etc., Earth, Rock,

Timber and Marbles.English bond and Flemish bond - odd and even courses for one, one and half, two and two and half brick walls in thickness at the junction of a corner.

## UNIT V

### Doors, Windows, Ventilators And Roofs:

Panelled door, Panelled and glazed door, glazed windows, panelled windows, swing ventilators, fixed ventilators, coupled roof, collar roofs.King Post truss, Queen Post trussSloped and flat roof buildings: drawing plans, Elevations and Cross Sections of given sloped and flat roof buildings.

## UNIT VI

### Planning and Designing Of Buildings:

Draw the Plan, Elevation and Sections of a Residential and Public buildings from the given line diagram.

### TEXT BOOKS:

1. Planning, designing and Scheduling byGurucharan Singh and Jagadish Singh
2. Building planning and drawing by M. Chakravarthi.
3. 'A' Series & 'B' Series of JNTU Engineering College, Anantapur,

### REFERENCES:

1. Building drawing by M G Shah, C M Kale and S Y Patki, Tata McGraw Hill, New Delhi.
2. Principles of Building Drawing by M G Shah and C M Kale, Trinity Publications, New Delhi.
3. Civil Engineering drawing and House planningby B. P. Verma, Khanna publishers, New Delhi.
4. Civil Engineering Building practice bySuraj Singh: CBS Publications, New Delhi, and Chennai.
5. Building Materials and Construction by G. C Saha and Joy Gopal Jana, Mcgraw Hill
6. Education (P ) India Ltd. New Delhi.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
<b>CO1</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3
<b>CO2</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3
<b>CO3</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3
<b>CO4</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3
<b>CO5</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3
<b>CO6</b>	3	3	2	1	1	1	1	1	1	1	1	3	2	1	3