

3/4 B.Tech. FIFTH SEMESTER

CE5L3

COMPUTER AIDED BUILDING DRAWING

Credits: 1

Lecture: --

Internal assessment: 25 marks

Lab : 2 periods/week

Semester end examination: 50 marks

Objectives:

- To gain knowledge of fundamentals of building drawing based on national building code, enabling students to prepare them using AutoCAD.
- To acquire skills in planning and detailing various types of buildings.

Learning outcomes:

After performing the experiments listed in the syllabus, the students will have skills on:

- Building drawing based on national building code using AutoCAD
- Planning and detailing various types of buildings.

UNIT I

Fully Paneled Window

UNIT II

Fully Paneled Door with wooden panel

Fully Paneled Door with RCC frame

UNIT III

Paneled and glazed door with wooden panel

UNIT IV

Steel roof truss

King post and Queen post trusses

UNIT V

Single floor residential building - Plan, Elevation and Cross section

Storied residential building- Plan, Elevation and Cross section

UNIT VI

Framed office building- Plan, Elevation and Cross section

UNIT VII

Institution building- Plan, Elevation and Cross section

UNIT VIII

3D view of a single floor residential building

3D view of a dog legged stair case

3D view of a spiral stair case

Learning resources

Text books:

1. A Course in Civil Engineering Drawing, (4th edition) Sikka V.B., S.K.Kataria & Sons, New Delhi, 1998.

2. Building Drawing with an Integrated Approach to Built Environment, (4th edition) by Shah, M.G., Kale C.M. and Patki S.Y., Tata McGraw-Hill, 2008.

Reference codes:

1. IS: 962 – 1967 Code of Practical for Architectural and Building Drawing
2. IS: 4021 – 1983 Specification for Timber Door, Window and Ventilator Frames
3. IS: 6523 – 1983 Specification for Precast Reinforced Concrete Door and Window Frames
4. IS: 1003 – 1977 Part I, II Specification for Timber Panelled and Glazed Shutters
5. IS: 2191 – 1983 Part I, II Specification for Wooden Flush Door Shutters
6. IS: 6198 – 1983 Specification for Lugged, Braced and Battened Door and Window Frames.