

31047- CAD IN CIVIL ENGINEERING DRAWING PRACTICE I

DETAILED SYLLABUS

Objectives

On completion of the course, the student will be able

- To know about CAD commands
- To understand building components
- To draw building drawing using CAD software
- To prepare approval drawing for submission to authority

LIST OF EXPERIMENTS

Preparation of drawing using CAD Software

Introduction of CAD software for Preparation of Drawings

1. Definition of various commands used in CAD software.
2. Simple Exercises for familiarizing the drawing commands in CAD software.

PART A

Draw the given drawings in Computer and take print out of all drawings in A4 sheet using Inkjet / laser printer or plotter and produced in file forms as record.

1. Section of semi-circular Arch
2. Elevation of door, partly panelled and partly glazed
3. Preparation of Plan showing arrangement of furniture / fixtures and other features with standard sizes for the followings (Each room to be drawn separately - features and furniture may be pasted from the Blocks available in the packages)
 - (i) Living
 - (ii) Bed Room
 - (iii) Kitchen
 - (iv) Toilet
4. Steel Structures: Cross section of I, Channel, T, Angle and Tubular section, Compound Beams.
5. Section of Load bearing wall from parapet to foundation showing all the details across the section. (Single storey)

PART B

1. Draw the building drawing using available CAD software
2. Plan, Section and Elevation of single bed roomed building (R.C.C. Roof)
3. Plan, Section and Elevation of Double bed roomed building (R.C.C. Roof)
4. Plan, Section and Elevation of a Primary School Building
5. Plan, Section and Elevation of a Hospital Building
6. Plan, Section and Elevation of a Workshop with steel columns, Steel roof truss and Metal sheet Roofing of about 300 m² area.
7. Preparation of approval drawing to be submitted to Corporation or Municipality showing required details in one sheet such as
 - a) Site Plan (Land boundary, Building boundary, Car Parking, Passage, sanitary layout, septic tank location etc.
 - b) G.F. Plan, F.F. Plan, Section and Elevation (line diagram is enough)
 - c) Key Plan
 - d) Septic tank Plan and section (line diagram)
 - e) Rain water harvesting pit (with all detail)
 - f) Typical foundation details (Column foundation or spread footing)
 - g) Title block showing – joinery details, Specification, Area statement, colour Index, Title of the property, space for owners Signature and Licensed Surveyor's Signature with address.