COMPUTER APPLICATIONS AND CAD PRACTICAL

DETAILED SYLLABUS

CAD INTRODUCTION

Introduction – History of CAD – Applications – Advantages over manual drafting – Hardware requirements – Software requirements – Windows desktop – CAD screen interface – menus – Tool bars – How to start CAD – How to execute command – types of co-ordinate systems – Absolute – Relative – Polar.

DRAWING AIDS AND EDITING COMMANDS

Creating objects (2D) – Using draw commands – Creating text – Drawing with precision – Osnap options – drafting settings – drawing aids – Fill, Snap, Grid, Ortho lines – Function keys - Editing and modify commands – Object selection methods – Erasing object – Oops - Cancelling and undoing a command – Copy – Move – Array – Offset – Scale – Rotate – Mirror – Break – Trim – Extend – Explode. Divide – Measure – stretch – Lengthen – Changing properties – Color – line types –LT scale – Matching properties – Editing with grips – Pedit – Ddedit – Mledit.

BASIC DIMENSIONING, HATCHING, BLOCKS AND VIEWS

Basic dimensioning – Editing dimensions – Dimension styles – Dimension system variables. Machine drawing with CAD. Creation of blocks – Wblock – inserting a block – Block attributes – Hatching –Pattern types – Boundary hatch – working with layers - Controlling the drawing display – Blipmode – View group commands – Zoom, redraw, regen, regenauto, pan, viewres – Real time zoom. Inquiry groups – calculating area – Distance – Time – Status of drawing – Using calculator.

CAD EXERCISES

Detailed drawings of following machine parts are to be given to students. Draw the assembled views (two views only) and bill of materials. The elevation / sectional elevation / plan / sectional plan / side view with dimensioning.

1. Sleeve & Cotter joint

2. Screw jack

3. Plummer Block

Diploma, Anna University-UG, PG., HSC & SSLC

Notes   *Available @*
Syllabus
Question Papers   www.AllAbtEngg.com
Results and Many more…

4. Simple Eccentric

5. Machine Vice

6. Protected type flanged coupling

Reference Books

1) Inside AutoCAD - D. Raker and H. Rice - BPB Publications, NewDelhi

2) Engineering Drawing and Graphics + AutoCAD – K.Venugopal, - New Age International Publications

3) AutoCAD with Applications - Sham Tickoo - Tata Mcgraw Hill.

OBJECTIVES

On completion of the exercises, the students must be able to

- Use the different facilities available in the word processor
- Analyse the data sheet
- Create and manipulate the database
- Prepare PowerPoint presentation
- Practice on CADD commands in making 2D Drawings.
- Draw assembled drawings using CADD.
- Draw sectional views using different types of sections.