

## COMPUTER AIDED MACHINE DRAWING - II LAB

Name of Lab In-charge: Mr. Kuber Dwivedi

Course Outcomes:

Code	COURSE Outcome(CO)
1	Students will be able to acquire the knowledge of machine drawing ethics for the representation of machine components.
2	Student will be able to understand and draw the basic representation of limits, fits and Tolerances
3	Student will able to develop the 3D models of machine component by using drafting software's.
4	Student will able to draw the assembly of various machine components

**List of Equipment:**

Drawing Board

Auto cad

**List of Experiments:**

Sr. No.	As per AKTU	Performed/ Not performed
1	<b>Introduction:</b> Conventional representation of machine components and materials, Conventional representation of surface finish, Roughness number symbol, Symbols of Machine elements and welded joints. Classification of Drawings: Machine drawings, Production drawing, part drawing and assembly drawing. Introduction to detail drawing and bill of materials (BOM).	Performed
2	<b>Limits, Fits and Tolerances:</b> General aspects, Nominal size and basic dimensions, Definitions, Basis of fit or limit system, Systems of specifying tolerances, Designation of holes, Shafts and fits, Commonly used holes and shafts. List of Standard Abbreviation used.	Performed
3	<b>Part Modelling:</b> Introduction to part modelling of simple machine components using any 3D software (like CATIA, PRO E, UGNX, Autodesk Inventor or SOLIDWORKS) covering all commands/ features to develop a part model (Minimum 24 machine components need to be developed).	Performed
4	<b>Part Modelling&amp; Assemblies of:</b> Plummer Block Bearing, Machine Vice, Screw Jack, Engine Stuffing box, Lathe Tailstock, Feed Check Valve and Rams Bottom Safety Valve.	Performed

**Pictures of Labs:**