COMPUTER AIDED MACHINE DRAWING
(Using any standard package)

Course Code:13ME1111

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Pre requisites: Engineering Drawing

Course Outcomes:

At the end of this course, the student will be able to

CO 1 Draw the basic proportionate drawings for bearings, couplings, and fasteners

CO 2 Combine parts to form an assembly of mechanical components such as connecting rod, tail stock, eccentric

CO 3 Draw assembly views of different valves

CO 4 Draw the assembled views for screw jack, machine vice, Plummer block etc.,

CO 5 Draw the sectional views of assembled components

MACHINE DRAWING CONVENTIONS:

Need for drawing conventions – introduction to standard conventions

A) Conventional representation of materials, common machine elements and parts such as screws, nuts, bolts, keys, gears, webs, ribs.

B) Types of sections – selection of section planes and drawing of sections and auxiliary sectional views. Parts not usually sectioned.

I. Drawing of machine elements and simple parts

Selection of views, additional views for the following machine elements and parts with easy drawing proportions.

A) Standard forms of screw threads, bolts, nuts, stud bolts, tap bolts, set screws.

B) Keys, cotter joint and knuckle joint.

C) Riveted joints for plates

D) Shaft coupling, spigot and socket pipe joint.

E) Journal bearing and foot step bearing.

II. Assembly drawings:

Drawings of assembled views for the part drawings of the following using conventions and easy drawing proportions.

A) Engine parts – eccentric, petrol engine connecting rod, piston assembly.

B) Other machine parts - screw jack, machine vice, plummer block, lathe tailstock.

C) Valves- steam stop valve, non return valve and feed check valve.

TEXT BOOK:

K.L.Narayana, P.Kannaiah and K. Venkata Reddy, *"Machine Drawing"*, 3rd Edition, New Age Publishers, 2007.

REFERENCES:

1. N D Bhatt, *"Machine Drawing"*, 44th Edition, Charotar Publishers, 2009.
2. Dhawan, *"Machine Drawing"* , S.Chand Publications, 2005.
3. P.S.Gill. *"Machine Drawing"* , S.Chand Publications, 2005.