



TONTADARYA COLLEGE OF ENGINEERING, GADAG.
DEPARTMENT OF MECHANICAL ENGINEERING



SEMESTER: III/IV

COMPUTER AIDED MACHINE DRAWING

CARPET AREA : 75 Sq.Mts

TOTAL COST : Rs 7, 58,500

LIST OF EQUIPMENTS

SL. NO	PARTICULARS	QTY
1	Computers	20
2	Printer HP LaserJet 1018	01
3	LCD Projector	01
4	Software Solid Edge V18	30 Users
5	UPS 3 KVA	01

STAFF IN-CHARGE

Dr. D M Goudar
H O D

Prof. K H Pulikeshi
Faculty In-Charge

Mr. Prakash Badiger
Instructor



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COMPUTER AIDED MACHINE DRAWING

LIST OF EXPERIMENTS

Sub Code: 15/18ME36 A/46A

IA Marks: 20/40

Hours/Week: 02 L+04 P

Exam Hours:03

Total Hours: 50

Exam Marks: 80/60

PART-A

- 1 Introduction to Computer Aided Sketching. Review of graphic interface of the software. Review of basic sketching commands and navigational commands
- 2 Sections of Solids: Pyramids, Prisms, Cubes, Tetrahedrons, Cones and Cylinders resting (True shape of section only).
- 3 Orthographic views: Conversion of pictorial views into orthographic projections of simple machine parts with or without section.
- 4 Thread forms: Sectional views of threads. ISO Metric, BSW, square, Acme and Sellers thread, American Standard thread (Internal & External).
- 5 Fasteners: Hexagonal, square headed bolt & nut with washer assembly, simple assembly using stud bolts with nut and lock nut. Flanged nut, slotted nut, taper and split pin for locking, counter sunk head screw, grub screw, Allen screw.

PART-B

- 6 Keys & Joints: Parallel, Taper, Feather, Gib head keys & Woodruff key
- 7 Riveted joints: Single and double riveted lap joints, Butt joints with single/double cover straps (Chain and zigzag using snap head riveters).
- 8 Joints: Cotter joint (socket and spigot), Knuckle joint (pin joint) for two rods.
- 9 Couplings: Split muff coupling, Protected flange coupling, Pin (bush) type flexible coupling, Oldham's coupling & Universal coupling (Hook's Joint).

PART-C

- 10 Limits, Fits and Tolerances: Fundamental tolerances, Deviations, Methods of placing limit dimensions, Types of fits with symbols and applications, Geometrical tolerances on drawings, Standards followed in industry.
- 11 **Assembly Drawings: (Part drawings shall be given)**
 - I. Plummer block (Pedestal Bearing)
 - II. Rams Bottom Safety Valve
 - III. I.C. Engine connecting rod
 - IV. Screw jack (Bottle type)
 - V. Tailstock of lathe
 - VI. Machine vice
 - VII. Lathe square tool post

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