



**TONTADARYA COLLEGE OF ENGINEERING, GADAG.**  
**DEPARTMENT OF MECHANICAL ENGINEERING**



**SEMESTER: I/II**

**ENGINEERING GRAPHICS**

**CARPET AREA : 100 Sq.Mts**

**TOTAL COST : Rs 9,38,000**

**LIST OF EQUIPMENTS**

<b>SI. NO</b>	<b>PARTICULARS</b>	<b>QTY</b>
1	Computers	20
2	Printer HP LaserJet 1007	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. Prashant S.Hadagali**  
Faculty In-Charge

**Mr. Prakash Badiger**  
Instructor



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**LIST OF EXPERIMENTS**

**Sub Code: 15/18EGDL15/25**

**IA Marks: 20/40**

**Hours/Week: 02 L+02 P**

**Exam Hours:03**

**Total Hours: 50**

**Exam Marks: 80/60**

**PART-A**

- 1 Introduction to Computer Aided Sketching:** Introduction, Lettering, line conventions, dimensioning, and free hand practicing. Computer screen, layout of the software, standard tool bar I menu and description of most commonly used tool bars, and navigational tools. Co-ordinate system and reference planes HP, VP, RPP & LPP of 2D/3D environment. Selection of drawing sheet size and scale. Commands and creation of Lines, coordinate points, axes, poly-lines, square, rectangle, polygons, splines, circles, ellipse, text, move, copy, off-set, mirror, rotate, trim, extend, break, chamfer, fillet, curves, constraints viz., tangency, parallelism, inclination and perpendicularity.
- 2 Orthographic projections of points, straight lines and planes:** Introduction, Definitions-Planes of projection, reference line and conventions employed. First angle and Third angle projection. Projections of points in all the four quadrants. Projections of straight lines (located in first quadrant/first angle only), true and apparent lengths, true and apparent inclinations to reference planes. Orthographic projections of plane surfaces Projections of regular plane surfaces-triangle, square, rectangle, pentagon, hexagon and circle-in simple positions inclined to both the planes; planes in different positions by change of position method only.
- 3 Projections of solids:** Introduction, definitions -projections of right regular tetrahedron, hexahedron (cube), prisms, pyramids, and cones with axis inclined to both the planes.
- 4 Development of Lateral Surfaces of Solids:** Introduction to section planes and sectional views. Development of lateral surfaces of right regular prisms, cylinders, pyramids, and cones resting with base on HP only. Development of their frustums and truncations.
- 5 Isometric Projection (using isometric scale only) :** Introduction, Isometric scale, Isometric projection of simple plane figures, Isometric projection of hexahedron(cube), right regular prisms, pyramids, cylinders, cones, and spheres. Isometric projection of combination of two simple solids. Conversion of given isometric/ pictorial views to orthographic views of simple objects

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