L123- COMPUTER AIDED ENGINEERING DRAWING LAB

At least 10 Exercises are to be conducted using Auto Cad software:

BASIC AUTO CAD COMMANDS:

1. Basic drawing commands (line, circle, arc, ellipse, polygon, and rectangle).
2. Edit commands (copy, move, erase, zoom).
3. Array commands (polar array, rectangular array, P-edit, divide aline, offset).
4. Hatching &line commands (hatching with different angles& different types of lines).
5. Mirror & trim commands (mirror an object, trim, extend a line, chamfer &fillet, explode).
6. Dimensioning & text commands (linear, angular, radius, diameter& text).

PROJECTION OF POINTS AND LINES:

1. Projection of points (I, II, III, & IV quadrants).
2. Projection of lines parallel to both reference planes.
3. Projection of lines parallel to one reference plane & inclined to other reference plane.

ORTHOGRAPHIC PROJECTIONS:

1. Conversion of plane figures.
2. Conversion of circular figures.
3. Conversion of both combination of plane figures and circular figures.

ISOMETRIC PROJECTIONS:

4. Conversion of plane figures.
5. Conversion of circular figures.
6. Conversion of both combination of plane figures and circular figures.

CYCLE: 1

SNO	SHEETS	EXERCISE	COMMANDS TO BE COVERED	REFERENCES	PAGE NUMBER
1	SHEET-1	Basic drawing commands	line, circle, arc, ellipse, polygon, and rectangle	PLATE 2.1& 2.2	26
2	SHEET-2	Edit commands	copy, move, erase, zoom, measure, divide, pan, change properties	PLATE 2.3& 2.4	27
3	SHEET-3	Array commands	polar array, rectangular array, P-edit, divide aline, offset	PLATE 2.5& 2.6	28&29
4	SHEET-4	Hatching &line commands	hatching with different angles& different types of lines	PLATE 2.8& 2.9	31&32
5	SHEET-5	Mirror & trim commands	mirror an object, trim, extend a line, chamfer &fillet, explode	PLATE 2.7& 2.13	30&35
6	SHEET-6	Dimensioning & text commands	linear, angular, radius, diameter& text	PLATE 4.1	69
7	SHEET-7	Projection of points	Points & lines	Case-1,2,3,4	171
8	SHEET-8	Projection of lines(parallel to both reference planes)	line	Fig:9.4(a & b)	172&173
9	SHEET-9	Projection of lines (parallel to one reference plane & inclined to other reference plane)	lines	Fig:9.4(c)	173

CYCLE: 2

SNO	SHEETS	EXERCISES	REFERENCE	PAGE NUMBER
Orthographic projections				
10	SHEET-10	Conversion of plane figures	PLATE 5.1& 5.3	82&83
11	SHEET-11	Conversion of circular figures	PLATE 5.9& 5.13	86&88
12	SHEET-12	Conversion of both combination of plane figures and circular figures	PLATE 5.25,5.26 PLATE5.27,5.28	94&95
Isometric projections				
13	SHEET-13	Conversion of plane figures	PLATE 6.3	122
14	SHEET-14	Conversion of circular figures	PLATE 6.4	123
15	SHEET-15	Conversion of both combination of plane figures and circular figures	PLATE 6.8&6.10	125&126

Note: References and Page numbers have been given from below text book

M. Kulkarni, A.P Rastogi, and A.K. Sarkar, Engineering Graphics with AutoCAD, PHI Learning Private Limited, New Delhi, 2009.