

LESSON PLAN

PROGRAMME: DIPLOMA IN ELECTRICAL ENGINEERING COURSE NAME: ENGINEERING DRAWING COURSE CODE: Pr.3a SEMESTER: 1ST PERIODS/WEEK: 06 TOTAL PERIODS: 90	NAME OF THE FACULTY: UTKALIKA PRADHAN SESSION: SUMMER
CLASS	TOPICS
1	Demonstration of various sizes of drawing boards, drawing sheets as per BIS, types of pencils, instruments, and scales (RF), lying of drawing sheet, margin, standard layout and title block as per BIS, Folding principle of drawings (blue prints, print outs etc.) Demonstration of various types of lines & their uses. Demonstration of the principle of single stroke, gothic lettering & numerals as per BIS.
2	Drawing of layout of sheet with margin & title block. Drawing of different types of lines. Drawing of single stroke & gothic lettering.
3	Demonstration of significance of scales in drawing; different types of scales & steps to draw plain scale and diagonal scale. Drawing of Plain scale & diagonal scale
4	Demonstration of Conic sections, Explanation of terms like focus, vertex, directrix and eccentricity. Drawing of conics sections by eccentricity method – Ellipse, Parabola and Hyperbola.
5	Drawing of Ellipse by concentric circle method and arc of circle method. Drawing of parabola by Rectangle Method and Tangent Method.
6	Demonstration of the principles of 1st angle and 3rd angle projections with the help of models and draw symbols.
7	Drawing of projection of points.
8	Drawing of projection of straight line (parallel to both planes, parallel to one and perpendicular to other, parallel to one and inclined to other and inclined to both reference planes).
9	Drawing of plane figure such as squares, rectangles, triangles, circle, Pentagon and hexagon (perpendicular to one plane and inclined to other).
10	Demonstration of projections of solids such as prism, cylinder, cone, tetrahedron and pyramid in simple position (with axis parallel to one reference plane and perpendicular to other reference plane).
11	Drawing of projections of prism & pyramid in simple position (with axis parallel to one reference plane and perpendicular to other reference plane).
12	Drawing of projections of cone & cylinder in simple position (with axis parallel to one reference plane and perpendicular to other reference plane).
13	Demonstration of the sectional projection & development of prism, cylinder in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
14	Drawing of the sectional projection & development of prism in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
15	Drawing of the sectional projection & development of cylinder in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
16	Demonstration of the sectional projection & development of cone and pyramid in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
17	Drawing of the sectional projection & development of cone in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
18	Drawing of the sectional projection & development of pyramid in simple position by a cutting plane perpendicular to one reference plane and inclined to other reference plane.
19	Demonstration of isometric projections of solids (prism, pyramid, cone & cylinder)

20	Drawing of isometric view & Isometric projection of prism & pyramid with axis horizontal and vertical with construction of isometric scales.
21	Drawing of isometric view & Isometric projection of cone & cylinder with axis horizontal and vertical with construction of isometric scales.
22	Explanation of terms related to building drawing. Demonstration of steps to draw plan & elevation of a building.
23	Drawing of plan, elevation of single room building with verandah (Flat roof according to given line plan and specification).
24	Drawing of plan, elevation of single room building with verandah (Flat roof according to given line plan and specification).
25	Drawing of plan, elevation of single room building with verandah (Flat roof according to given line plan and specification).
26	Introduction to Auto CAD Software-Settings, Limits etc. Hand on practice for settings & limits on AutoCAD.
27	Auto CAD commands – Draw commands (Line, circle, arc, polygon, ellipse, rectangle). Edit command, dimension commands and Modify Commands for two-dimensional drafting only. Hand on practice of all commands.
28	Exercise for practice using Auto CAD: Orthographic projections of lines, planes and solids
29	Exercise for practice using Auto CAD: Isometric projections of lines, planes and solids
30	Exercise for practice using Auto CAD: Plan of a building.