

PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT
DEPARTMENT OF INFORMATION TECHNOLOGY

LESSON PLAN

Name: -Bhawna

Subject Name: - Computer Graphics

Branch/Semester: -IT/5th Sem

Subject Code:-IT-303A

Sr. No.	Lecture No.	Topics To Be Covered
1.	L-1	Unit-I Computer Graphics applications, Display Devices
2.	L-2	Point & Positioning Devices, Plotting Techniques for point and Line
3.	L-3	Line drawing algorithms: DDA
4.	L-4	Bresenhams's Line drawing algorithm
5.	L-5	Mid point circle drawing algorithm
6.	L-6	Bresenhams's Circle drawing algorithms
7.	L-7	Filled area algorithms: Scan line
8.	L-8	Polygon filling algorithms
9.	L-9	Boundary filled algorithms
10.	L-10	Unit-II Window to view port transformation
11.	L-11	Window to view port mapping
12.	L-12	Two Dimensional transformation: translation, scaling, rotation, reflection and Shear
13.	L-13	Two Dimensional transformation: translation, scaling, rotation, reflection and Shear
14.	L-14	Homogeneous Coordinate system.
15.	L-15	Numerical Problems of transformation viewing pipeline.
16.	L-16	Clipping: Point & Line clipping algorithm
17.	L-17	4-bit code algorithm, Cohen-Sutherland Line clipping algorithms
18.	L-18	Liang-Barsky line clipping algorithms
19.	L-19	Polygon clipping: Sutherland-Hodgeman Polygon clipping algorithm.
20.	L-20	Curve clipping, Text clipping.

21.	L-21	Unit-III Projection: Parallel, Perspective, Vanishing Points.
22.	L-22	Projection: Parallel, Perspective, Vanishing Points.
23.	L-23	Projection depthcueing
24.	L-24	Surface rendering
25.	L-25	3-D transformation: Rotation, Shear, translation
26.	L-26	3-D transformation: Rotation, Shear, translation
27.	L-27	Unit-IV Representation of 3-D Curves and Surfaces: interpolation and approximation splines
28.	L-28	parametric conditions, Geometric continuity conditions
29.	L-29	Bezier curves and surfaces: properties of bezier curves, bezier surfaces.
30.	L-30	Hidden Surfaces removal: Hidden surface elimination
31.	L-31	Hidden Surfaces removal: Hidden surface elimination
32.	L-32	depth buffer algorithm
33.	L-33	scan line coherence and area coherence algorithm
34.	L-34	scan line coherence and area coherence algorithm
35.	L-35	priority algorithm
36.	L-36	Principles of Animation and Interpolation for Animation (Content Beyond Syllabus)
37.	L-37	Revision-Unit-I
38.	L-38	Revision-Unit-II
39.	L-39	Revision-Unit-III
40.	L-40	Revision-Unit-IV

(COURSE INCHARGE)

