## **LESSON PLAN (SESSION 2024-25)**

CLASS:- B.C.A SEM:- 4TH FACULTY NAME :- PRIYANSHU SRIVASTAVA

## **SUBJECT :- COMPUTER GRAPHICS (BCA-403)**

S.N o.	Date.	Day	Paper No.	Unit Name.	Topic.
1	16-Jan-25	Thursday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Overview of Computer Graphics, Advantages of Interactive Graphics.
2	17-Jan-25	Friday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Overview of Computer Graphics, Advantages of Interactive Graphics.
3	18-Jan-25	Saturday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Visualization, RGB color model, CMYK color model, Direct Table. Over View of Graphic
4	20-Jan-25	Monday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Visualization, RGB color model, CMYK color model, Direct Table. Over View of Graphic
5	21-Jan-25	Tuesday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Cathode Ray tube, direct view storage tubes, Raster scan display, 3D display devices
6	22-Jan-25	Wednesday		CLASS T	EACHING
7	23-Jan-25	Thursday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Cathode Ray tube, direct view storage tubes, Raster scan display, 3D display devices
8	24-Jan-25	Friday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Cathode Ray tube, direct view storage tubes, Raster scan display, 3D display devices
9	25-Jan-25	Saturday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Plotters, Printers, Digitizers, Light pens
10	27-Jan-25	Monday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Plotters, Printers, Digitizers, Light pens
11	28-Jan-25	Tuesday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Plotters, Printers, Digitizers, Light pens
12	29-Jan-25	Wednesday	MONTHY EVALUATION		
13	30-Jan-25	Thursday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Active and Passive Graphic Devices, Computer Graphics Software.
14	31-Jan-25	Friday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Active and Passive Graphic Devices, Computer Graphics Software.
15	1-Feb-25	Saturday	3	UNIT 1: Introduction to Computer Graphics and Devices:	Active and Passive Graphic Devices, Computer Graphics Software.
16	4-Feb-25	Tuesday	3	UNIT 4:Geometrical Transformations:	Two dimensional transformations – Translation, Rotation, Scaling
17	5-Feb-25	Wednesday	3	UNIT 4:Geometrical Transformations:	Two dimensional transformations – Translation, Rotation, Scaling
18	6-Feb-25	Thursday	CLASS TEACHING		
19	7-Feb-25	Friday	3	UNIT 4:Geometrical Transformations:	Homogeneous Coordinates and Matrix Representation of 2D Transformations
20	8-Feb-25	Saturday	3	UNIT 4:Geometrical Transformations:	Homogeneous Coordinates and Matrix Representation of 2D Transformations
21	10-Feb-25	Monday	3	UNIT 4:Geometrical Transformations:	Reflection, Shear, X shear, Y shear,
22	11-Feb-25	Tuesday	3	UNIT 4:Geometrical Transformations:	Reflection, Shear, X shear, Y shear,

23	13-Feb-25	Thursday	3	UNIT 4:Geometrical	Inverse Transformation, Viewing	
		-		Transformations:	Transformation,	
24	14-Feb-25	Friday	CLASS TEACHING			
25	15-Feb-25	Saturday	3	UNIT 4:Geometrical Transformations:	Normalization Transformation, Workstation Transformation, 3D transformation.	
26	17-Feb-25	Monday	3	UNIT 4:Geometrical Transformations:	Normalization Transformation, Workstation Transformation, 3D transformation.	
27	18-Feb-25	Tuesday	3	UNIT 5: 3D Viewing:	overview of 3D viewing, Specifying an Arbitrary 3D View	
28	19-Feb-25	Wednesday	3	UNIT 5: 3D Viewing:	overview of 3D viewing, Specifying an Arbitrary 3D View	
29	20-Feb-25	Thursday	3	UNIT 5: 3D Viewing:	Right handed viewing coordinate system, View reference point,	
30	21-Feb-25	Friday	MONTHY EVALUATION			
31	22-Feb-25	Saturday	3	UNIT 5: 3D Viewing:	Right handed viewing coordinate system, View reference point,	
32	24-Feb-25	Monday	3	UNIT 5: 3D Viewing:	Right handed viewing coordinate system, View reference point,	
33	25-Feb-25	Tuesday	3	UNIT 5: 3D Viewing:	View plane normal vector, Transformation from World Coordinate to Viewing Coordinates	
34	27-Feb-25	Thursday	3	UNIT 5: 3D Viewing:	View plane normal vector, Transformation from World Coordinate to Viewing Coordinates	
35	28-Feb-25	Friday	3	UNIT 5: 3D Viewing:	View plane normal vector, Transformation from World Coordinate to Viewing Coordinates	
36	1-Mar-25	Saturday	CLASS TEACHING			
37	3-Mar-25	Monday	3	UNIT 5: 3D Viewing:	Projection - Parallel Projection, Perspective Projection,	
38	4-Mar-25	Tuesday	3	UNIT 5: 3D Viewing:	Projection - Parallel Projection, Perspective Projection,	
39	5-Mar-25	Wednesday	3	UNIT 5: 3D Viewing:	Projection - Parallel Projection, Perspective Projection,	
40	6-Mar-25	Thursday	3	UNIT 5: 3D Viewing:	Orthographic projection, Oblique projection.	
41	7-Mar-25	Friday	3	UNIT 5: 3D Viewing:	Orthographic projection, Oblique projection.	
42	8-Mar-25	Saturday	CLASS TEACHING			
43	10-Mar-25	Monday	3	UNIT 2:Raster Graphics Algorithms:	Overview of Simple Raster Graphics Package(SRGP) Line Drawing: Basic concept in	
44	11-Mar-25	Tuesday	3	UNIT 2:Raster Graphics Algorithms:	Overview of Simple Raster Graphics Package(SRGP) Line Drawing: Basic concept in	
			2	UNIT 2:Raster Graphics Algorithms:	Overview of Simple Raster Graphics Package(SRGP) Line Drawing: Basic concept in	
45	17-Mar-25	Monday	3		Tackage(SKdT) Line Drawing. Dasie concept in	
45 46	17-Mar-25 18-Mar-25	Monday Tuesday	3	UNIT 2:Raster Graphics Algorithms:	Line Drawing Algorithms – Incremental Algorithm, Digital Difference Analyzer (DDA),	
-		,		UNIT 2:Raster Graphics Algorithms: UNIT 2:Raster Graphics Algorithms:	Line Drawing Algorithms – Incremental	

68	24-Apr-25	Thursday	MONTHY EVALUATION		
67	23-Apr-25	Wednesday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Generalized Clipping with Cyrus-beck Algorithm, Liang-Barsky Line Clipping
66	22-Apr-25	Tuesday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Clipping Lines - Sutherland and Cohen Subdivision Line Clipping Algorithm,
65	21-Apr-25	Monday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Clipping Lines - Sutherland and Cohen Subdivision Line Clipping Algorithm,
64	19-Apr-25	Saturday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Scan Line Algorithms, Scan Conversion Algorithm for Polygon Filling, pattern Filling.
63	17-Apr-25	Thursday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Polygon Filling – Seed Fill, Boundary Fill, Flood Fill
62	16-Apr-25	Wednesday	CLASS TEACHING		
61	15-Apr-25	Tuesday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Types of polygon- Concave, Convex
60	12-Apr-25	Saturday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Types of polygon- Concave, Convex
59	11-Apr-25	Friday	3	UNIT 2:Raster Graphics Algorithms:	Bresenham's Circle Algorithm, Midpoint Circle Algorithm
58	9-Apr-25	Wednesday	3	UNIT 2:Raster Graphics Algorithms:	Bresenham's Circle Algorithm, Midpoint Circle Algorithm
57	8-Apr-25	Tuesday	3	UNIT 2:Raster Graphics Algorithms:	Circle Drawing Algorithms – DDA Circle Drawing Algorithm
56	7-Apr-25	Monday	CLASS TEACHING		
55	5-Apr-25	Saturday	3	UNIT 2:Raster Graphics Algorithms:	polynomial Method, Trigonometric Method,
54	4-Apr-25	Friday	3	UNIT 2:Raster Graphics Algorithms:	polynomial Method, Trigonometric Method,
53	3-Apr-25	Thursday	3	UNIT 2:Raster Graphics Algorithms:	Circle Drawing: Basic Concepts, Representation of Circle
52	2-Apr-25	Wednesday	3	UNIT 2:Raster Graphics Algorithms:	Circle Drawing: Basic Concepts, Representation of Circle
51	1-Apr-25	Tuesday	3	UNIT 2:Raster Graphics Algorithms:	Bresenham's Line Algorithm, Generalized Bresenham's Algorithm, Midpoint Line
	29-Mar-25	Saturday			
	28-Mar-25	Friday		JUIL	
	27-Mar-25	Thursday		SCHE	DULE
	26-Mar-25	Wednesday		MID - TE	RM EXAM
	25-Mar-25	Tuesday			
	24-Mar-25	Monday			
50	22-Mar-25	Saturday	3	UNIT 2:Raster Graphics Algorithms:	Bresenham's Line Algorithm, Generalized Bresenham's Algorithm, Midpoint Line
49	21-Mar-25	Friday	3	UNIT 2:Raster Graphics Algorithms:	Bresenham's Line Algorithm, Generalized Bresenham's Algorithm, Midpoint Line

69	25-Apr-25	Friday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Generalized Clipping with Cyrus-beck Algorithm, Liang-Barsky Line Clipping
70	26-Apr-25	Saturday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Generalized Clipping with Cyrus-beck Algorithm, Liang-Barsky Line Clipping
71	28-Apr-25	Monday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Clipping Circles and Ellipses, Sutherland – Hodgeman Polygon Clipping
72	29-Apr-25	Tuesday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Clipping Circles and Ellipses, Sutherland – Hodgeman Polygon Clipping
73	30-Apr-25	Wednesday	3	UNIT 3: Clipping and Filling Rectangles and Polygons:	Clipping Circles and Ellipses, Sutherland – Hodgeman Polygon Clipping