Even Semester Lesson Plan

BCA-363

Computer Graphics

Teacher name: Neelam

April 2021

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| Introduction to Computer Graphics; Interactive and Passive Graphics; Applications of Computer Graphics; Display Devices: CRT; Random Scan, Raster Scan, Refresh Rate and Interlacing, Bit Planes, Color Depth, Color Palette, Color CRT Monitor, DVST, Flat-Panel Displays: Plasma Panel, LED, LCD; Lookup Table, Interactive Input Devices, Display Processor, General Purpose Graphics Software, Coordinate Representations;  Point-Plotting Techniques: Scan Conversion, Scan-Converting a Straight Line: The Symmetrical DDA, The Simple DDA, Bresenham’s Line Algorithm; |

May 2021

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| Scan-Converting a Circle: Circle drawing using Polar Coordinates, Bresenham’s Circle Algorithm, Scan-Converting an Ellipse: Polynomial Method, Trigonometric Method; Polygon Area Filling: Scan-line Fill and Flood Fill Algorithms;  Two-Dimensional Graphics Transformation: Basic Transformations: Translation, Rotation, Scaling; Matrix Representations and Homogeneous Coordinates; Other Transformations: Reflection, Shearing; |

June 2021

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| Coordinate Transformations; Composite Transformations; Inverse Transformation; Affine Transformations; Raster Transformation; Graphical Input: Pointing and Positioning Devices and Techniques  Two-Dimensional Viewing: Window and Viewport, 2-D Viewing Transformation Clipping: Point Clipping; Line Clipping: Cohen-Sutherland Line Clipping Algorithm, Mid-Point subdivision Line Clipping Algorithm; |

July 2021

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| Polygon Clipping: Sutherland-Hodgman Polygon Clipping  Algorithm; Three-Dimensional Graphics: Three-Dimensional Display Methods; 3-D Transformations: Translation, Rotation, Scaling; Composite Transformations; |