

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
MCA I Year II Semester Regular & Supplementary Examinations June-2025
COMPUTER GRAPHICS

Time: 3 Hours**Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- | | | | |
|---|-----|----|----|
| 1 a Identify various applications of Computer Graphics. | CO1 | L1 | 6M |
| b Discuss about Scan line Polygon fill algorithm. | CO1 | L2 | 6M |

OR

- | | | | |
|---|-----|----|----|
| 2 a Construct the Steps for Bresenham's Line algorithm. | CO1 | L2 | 6M |
| b Explain Raster Scan and Random Scan Displays | CO1 | L3 | 6M |

UNIT-II

- | | | | |
|--|-----|----|----|
| 3 a List out various 2D Geometric Transformations. | CO2 | L1 | 6M |
| b Show matrix representation for various 2d Transformations. | CO2 | L2 | 6M |

OR

- | | | | |
|--|-----|----|----|
| 4 a List out and Explain various kinds of 3D composite transformations with example. | CO2 | L1 | 6M |
| b Demonstrate Shearing Transformation in 3D with an example. | CO2 | L3 | 6M |

UNIT-III

- | | | | |
|--|-----|----|----|
| 5 a Demonstrate steps for window to viewport coordinate transformation with example. | CO3 | L3 | 6M |
| b Discuss about line Clipping. | CO3 | L2 | 6M |

OR

- | | | | |
|---|-----|----|----|
| 6 a Discuss about Polygon Clipping. | CO3 | L2 | 6M |
| b Define Curves. Explain the types of curves. | CO3 | L4 | 6M |

UNIT-IV

- | | | | |
|--|-----|----|----|
| 7 a What do you mean by Visible Surface Detection? | CO4 | L2 | 6M |
| b Explain classification of VSD Algorithm. | CO4 | L4 | 6M |

OR

- | | | | |
|---|-----|----|----|
| 8 a Discuss the factors on which lightening effect depends. | CO4 | L3 | 6M |
| b Illustrate Halftone Pattern briefly. | CO4 | L5 | 6M |

UNIT-V

- | | | | |
|---|-----|----|----|
| 9 a Write short notes on XYZ Color Model. | CO5 | L2 | 6M |
| b Discuss about Color Models. | CO5 | L2 | 6M |

OR

- | | | | |
|---|-----|----|----|
| 10 a Explain various properties of Light. | CO5 | L3 | 6M |
| b Write short notes on Animation. | CO5 | L2 | 6M |

*** END ***