

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-V Semester (CSE/IT)

COURSE CODE (CREDITS): 18B11CI515 (3)

MAX. MARKS: 15

COURSE NAME: Computer Graphics

COURSE INSTRUCTOR: RVS

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is allowed

Q.No	Question	CO	Marks
Q1	Explain the difference between Raster-Scan Display and Random-Scan Display. Mention any two differences.	1	2
Q2	Explain the Cohen-Sutherland Line Clipping Algorithm. Describe the significance of the region used in the algorithm.	1	3
Q3	(a) True/False i. LCD is an example of a flat-panel display technology. ii. The Midpoint Circle Algorithm uses floating-point calculations for every pixel. iii. Cohen-Sutherland is a polygon filling algorithm. (b) Fill in the blanks i. The smallest graphical element used to represent an image on a raster display is called a _____. ii. The _____ algorithm is commonly used for line clipping against a rectangular window using parametric equations. iii. The process of converting geometric primitives into pixels is called _____.	1	3
Q4	Using the DDA Line Drawing Algorithm, calculate the pixels generated for the line joining the points (2, 3) and (8, 6). Show the required calculations.	2	3
Q5	Apply the Midpoint Circle Drawing Algorithm to generate the pixels for the first octant of a circle centered at (0, 0) with radius 5. Calculate the decision parameter at each iteration.	2	4