

CS 307 – COMPUTER GRAPHICS (2019/20)

Assignment 02

Submit the answers to all questions on or before 4.00 pm November 27th, 2020

1. Explain the principle behind the Midpoint circle drawing algorithm? Note that there is no mathematical derivation required.
2. Find points on a circle of its octants with the circle centered at $(-4, -4)$ and has a radius of 10 units using the Midpoint circle drawing algorithm.
(Hint: Assume that the circle is centered at the origin and proceed to solve)
3. Write down the pseudo code for Bresenham's circle drawing algorithm.
4. Apply Bresenham's circle drawing algorithm to compute the first three decision parameters for a circle with radius 12 units.
5. Determine coordinates for the remaining 7 points by symmetry if you have given a point $P(x, y)$ in the first octant of a circle.