



# SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY  
(DEEMED TO BE UNIVERSITY)

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**Program : B.E (Computer Science) Max. Marks : 15**  
**Course : Computer Graphics and Multimedia Applications**  
**Course code : SCSA1503**

## Assignment – 1

**Fill in the blanks (MCQs):** (5\*1 = 5 marks)

- The image quality seems good when the number of pixels are .....  
a. Higher    b. Lesser    c. Both Higher and Lesser
- Bresenham's line drawing algorithm employs floating point and rounding off operations.  
(True/ False)
- Pixel definition is stored in a memory location called.....
- is used to choose the next correct pixel in Bresenham's line drawing algorithm.
- What is the formula used for initial decision parameter in midpoint circle generation algorithm?  
a.  $P_0 = 1-r$     b.  $P_0 = P+2x+1$     c.  $P_0 = P+2x - 2y+1$     d.  $P_0 = 2dy-dx$

**Short Answers:** (5\*1 = 5 marks)

- What is Refresh CRT?
- List out the merits and demerits of DVST.
- Compare and Contrast Raster Scan and Random Scan.
- State few attributes of Graphics Primitives
- Discuss the drawbacks associated with the midpoint Circle Drawing algorithm.

**Long Answer:** (1\*5 = 5 marks)

Narrate the Bresenham's line drawing algorithm and generate the points between the starting coordinates (9,18) and ending coordinates (14,22) using the same algorithm.