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ROLL NO. : 17

SUBJECT : C.G.

TOPIC : DDA ALGORITHM

Digital Differential Analyzer (DDA) is a fundamental algorithm in computer graphics used for rendering lines and other linear geometric primitives on a computer screen. The DDA algorithm is primarily employed to draw straight lines on a pixel-based display, such as a computer monitor. It accomplishes this by incrementally determining the positions of individual pixels along the line, from the starting point to the ending point.

Advantages of DDA Algorithm:

1. Simplicity: DDA is straightforward to implement and understand, making it a popular choice for beginners in computer graphics.
2. Efficiency: It is computationally efficient, as it requires only integer arithmetic operations, making it suitable for real-time graphics applications
3. Accuracy: DDA produces accurate results when drawing lines, especially at low resolutions, as it rounds the coordinates to the nearest pixels.