

**JIS College of Engineering**  
**B. Tech (Information Technology)-5th Semester**  
**Computer Graphics Assignment for Laboratory**

Paper Code: IT-505C

Assignment ID: Soham/OSem/2015/IT505C/0004

Name: \_\_\_\_\_

Roll: \_\_\_\_\_ Date: \_\_\_\_\_

My Full Signature: \_\_\_\_\_

1. Digitize a Line from (10, 12) to (20, 18) using Bresenham's Line drawing Algorithm.
  - a. Tabularize results of each iteration.
  - b. Now verify, with a Turbo C program which implements Bresenham's line drawing Algorithm, whether the points you plotted are same as found out by the program
2. Prove that  $R(\theta_1) \cdot R(\theta_2) \equiv R(\theta_1 + \theta_2)$ , where  $R(\theta)$  represents Rotation operation by an angle  $\theta$
3. Prove or disprove:  $S(a, b) \cdot S(c, d) \equiv S(a \cdot c, b \cdot d)$ , where  $S(f_x, f_y)$  represents Scaling operation.
4. Prove or disprove: "Rotation about the origin by  $180^\circ$  is equivalent to reflection about the origin"

I suggest you to improve on:

