Note:- Answer only (four) questions.

Q1: A) Draw the line from (0,0) to (-8, -4) using General Bresenham Algorithm. (10 marks)

B) what are the features of this algorithm? (2.5 marks)

Q2: A) Explain the Calligraphic Refresh graphics display? (9 marks)

B) what are the features of Calligraphic Refresh display? (3.5 marks)

Q3: You have points of object (2,1), (4,1), (3,3), using matrices and drawing, do the following:

1) Rotation the object with (180) angle unticlockwise depend on point(2,1). (6.5 marks)

2) Reflection the object on the X-axis. (3 marks)

3) scale the object with SX=2, SY=2. (3 marks)

Note: every step depend on the result of the previous step

Q4: you have points of object p1(2,2,2), p2(4,2,2), p3(3,2,4), p4(3,4,3) using matrix without drawing do the following:

1) Rotation the object with angle (180) about Z-axis. (6.5 marks)

2) Reflect the object in X-Y plane. (6 marks)

Note: every step depend on the result of the previous step

Q5: If the clipping window is XL=4 ; XR=10; YT=10 ; YB=4 . Clip the lines

KL=(6,6)-(9,7) and AB=(12,2)-(12,12). (12.5 marks)