Roll No…….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [11]

M.Sc. (IT) (Semester – 3rd)
COMPUTER GRAPHICS
Subject Code: MITE1310
Paper ID: [220423]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It carries 16 marks. It consists of 4 questions of 4 marks each.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(4 marks each)**

Q1. Explain the uses of Computer Graphics?

Q2. Explain 2D transformations with its basic types.

Q3. Define Shear transformation.

Q4. Explain Window to Viewport transformation.

Section – B **(8 marks each)**

Q5. Differentiate between Vector scan display and Raster scan display.

Q6. List two polygon filling methods.

Q7. What is clipping? Explain the Mid-Point sub division Algorithm for line clipping.

Q8. Rotate a tringle [(4,6), (2,4), (6,2)] about the vertex (4,6) by 180^0 clockwise and find the new vertices.

Section – C **(10 marks each)**

Q9. What is Cathode Ray Tube (CRT)? Explain the functioning of CRT with proper diagram.

Q10. Use the Cohen Sutherland algorithm to clip two lines P1(40,15) - P2(75,45) and P3(70,20) - P4(100,10) against a window A(50,10), B(80,10), C(80,40), D(50,40).

Q11. Describe any method for visible surface detection.