BT-8/JX 9502
Interactive Computer Graphics
Paper: CSE-404

Time: Three Hours] [Maximum Marks: 100

Note:— Attempt any FIVE questions, selecting at least ONE question from each Unit.

UNIT-I

1. (a) What do you mean by Interactive Computer Graphics and its usage in various application. 10
   (b) Explain the architecture of Raster-display. 10

2. (a) Compare DVST and refresh display. List the properties of phosphor used in CRT monitors. 10
   (b) What do you mean by Lookup-table and its role in Framebuffer? 10

UNIT-II

3. (a) Differentiate world coordinates, screen coordinates and user coordinates. 10
   (b) Write an Algorithm to draw a circle using Bresenham's Algorithm. 10

4. (a) Explain two-dimensional transformation techniques. 10
   (b) Write down and describe mid point circle algorithm. 10

UNIT-III

5. (a) Describe various kind of positioning and pointing devices. 12
   (b) Write a short note on Mouse Programming. 8
6. (a) Explain Sutherland-Hodgman Algorithm for clipping. 10
(b) Explain the following:
   (i) Zooming
   (ii) Panning
   (iii) Dragging
   (iv) Clipping. 10

UNIT-IV

7. (a) Explain Hidden line and surface. How does elimination takes place? 10
(b) What is one point, two point and three point perspective projection? 10

8. (a) Explain the procedure of Shearing and Reflection in 3-D system. 10
(b) Describe Projection and various types of projection methods. 10