Duration: 2½ hours

Seat Number:-_____

Marks: 75

Note: 1) All questions are Compulsory.
2) Figures to the right indicate maximum marks.

1. Attempt **any three** of the following : (15)

   a) Explain the difference between vector display and raster display   CO1 - (R)

   b) Explain Cathode Ray tube basics   CO1 - (U)

   c) Explain Raster scan display   ·CO1 - (U)

   d) Draw a line from A(0,1) to B(5,6) using DDA algorithm   CO1 - (U)

   e) Explain cohen Sutherland line clipping algorithm   CO1 ⋅ (R)

   f) Explain the working of LCD   CO1 - (R)

2. Attempt **any three** of the following : (15)

   a) Describe the Techniques for Generating Perspective Views,   CO2 - (R)

   b) Explain rotation about an arbitrary point   CO2 - (U)

   c) Explain window to viewport transformation   CO2 - (R)

   d) Explain perspective transformation   CO2 - (R)

   e) Explain parallel projection   CO2 - (R)

   f) Write a short note on Oblique Projections,   CO2 - (R)

3. Attempt **any three** of the following : (15)

   a) Explain the stages in 3d viewing   CO3 - (R)

   b) Explain canonical view volume   CO3 - (R)

   c) Explain the concept of photometry in detail   CO3 - (R)

   d) Explain Z-buffer algorithm   CO3 - (U)

   e) Describe Back Face removal algorithm   CO3 - (U)

   f) Explain Binary space partitioning   CO3 -(R)

4. Attempt **any three** of the following : (15)

   a) Explain explicit and implicit curve representation in detail with example   CO4 - (U)

   b) Explain Non parametric curves in detail   CO4 - (R)

   c) Explain the properties of B-Spline curves in detail   CO4 - (R)

   d) Explain the properties of Bezier surfaces   ·CO4 - (R)

   e) Explain the concept of cubic spline in detail   CO4 - (R)

f) Explain Parametric Representation of a Hyperbola,   CO4 - (R)

5.   Attempt **any three** of the following :   (15)

   a) List the different types of animation   CO5 - (R)
   b) Explain the anticipation animation in detail   CO5 - (R)
   c) Explain follow through and overlapping action   CO5 - (U)
   d) Explain the concept of keyframing in detail   CO5 - (R)
   e) Write a short note on deformation   CO5 - (R)
   f) Explain Digital Image File format   CO5 - (R)