

SECTION-C

- 5) Classify the projections in 3-D space. Explain the characteristics of each class. Derive the generalized transformation matrix for rotation about an arbitrary axis in three dimensional domains.
- 6) Write short notes on :
 - a) B-Spline curves
 - b) Fractals and its classification

SECTION-D

- 7) What is the basic concept of hidden surfaces and line removal methods with suitable examples? Distinguish between Painters algorithm and z-buffer algorithm for hidden surface removal.
- 8) Write short notes on :
 - a) Gouraud shading
 - b) Dithering techniques

SECTION-E

- 9) **Write briefly :**
 - a) Name the person generally credited with laying the foundations of modern interactive computer graphics through his doctoral thesis "Sketchpad" done at MIT in 1963
 - b) Consider a frame buffer having 4 bits per pixel and suppose that 5 bits drive each of three DAC's. How many entries are there in the lookup table (LUT)?
 - c) What is CMY?
 - d) Explain briefly flood fill technique.
 - e) What is a digital frame buffer?
 - f) What are advantages of B-splines over Bezier curves?
 - g) What is Morphing of objects?
 - h) What is diffuse reflection?
 - i) Define Refresh Rate.
 - j) What is wire-frame rendering?