

Duration: 3hrs

[Max Marks: 80]

- N.B. : (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.

- 1 Attempt **any FOUR** [20]
 - a Differentiate Raster scan & random scan displays.
 - b Explain Antialiasing techniques.
 - c What is 2D transformation? Write 2D matrix of each one.
 - d Explain Bezier Curve.
 - e Differentiate Lossy Compression and Lossless Compression.
- 2 a Digitize a line from (10,12) to (15,15) on a raster screen using Bresenham's straight line algorithm. [10]
b Explain Flood Fill Algorithm along with source code. [10]
- 3 a Explain Sutherland- Hodgeman– Polygon Clipping Algorithm. [10]
b Explain Shannon-Fano Algorithm for Data Compression in detail. [10]
- 4 a Explain 3D Transformations. [10]
b What are the types of Video signals? Explain Video file format. Also explain Audio data format and structure. [10]
- 5 a Explain in detail about B-Spline curves and surfaces. [10]
b Explain Cohen- Sutherland Line clipping algorithm. [10]
- 6 a What are the applications of Multimedia? [10]
b Explain Weiler-Atherton Polygon Clipping Algorithm. [10]
