

Roll No 0810CA22 0014

MCADD-504

M.C.A. (Integrated), V Semester

Examination, December 2024

Computer Graphics

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain Direct View Storage Tube (DVST) with a diagram. 7
b) Given the centre point coordinates (0, 0) and radius as 8, generate all the points to form a circle based on Bresenham circle drawing algorithm. 7
2. a) What is Anti-aliasing and its methods? 7
b) Given a triangle with points (1, 1), (0,0) and (1, 0). Apply shear parameter 2 on X axis and 2 on Y axis and find out the new coordinates of the object. 7
3. a) Define Sutherland Hodgeman algorithm for polygon clipping. 7
b) Explain Window to Viewport Transformation in Computer Graphics with Implementation. 7
4. a) Explain 3D Rotation transformation in Computer graphics. 7
b) Describe the procedure to generate Bezier curve and define an example with an appropriate diagram. 7

5. a) Describe illumination model and explain any one methods. 7
 b) Explain Phong's shading model. How Surface rendering is done with the help of Phong shading? 7
6. a) Write all the Attributes of output primitives. 7
 b) Calculate the points between the starting coordinates (5, 9) and ending coordinates (12, 16) by using Mid point line drawing algorithm. 7
7. a) What is the Reflection of light and Types of reflection? 7
 b) Explain projection and its type's parallel projection and perspective projection. 7
8. Write short notes on : 14
 - i) CMY color model
 - ii) B-spline method
 - iii) View port clipping
 - iv) Composition transformation
