2021
M.Sc. Information Technology
Third Semester
MS-39: Computer Graphics

Time allowed: 3 Hours

Max. Marks: 80

NOTE: Attempt _five_ questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I – IV.

x-x-x

UNIT – I

I. Compare 2-point, 4-point and 8-point circle drawing algorithms? (16)

II. What is the role of display processor? Explain each component of display processor with the help of block diagram? (16)

UNIT – II

III. What is line clipping? Explain with the help of Liang-Barsky method? (16)

IV. What is the matrix representation of basic transformations? (16)

UNIT – III

V. What is animation? Hoe animation is handled in C language? (16)

VI. WAP in C to print a drawing? (16)

UNIT – IV

VII. Explain the following with examples:

a) Quadric surfaces?

b) Bezier surfaces? (2x8)

VIII. Explain the concept of projection? Also compare parallel and perspective projection with example? (16)

UNIT – V

IX. Answer the following questions:-

a) What is hidden surface?

b) What are the conditions for a line to be clipping candidate?

P.T.O.

c) What are homogenous coordinates?

d) What is Inking?

e) Which graphic library is better OpenGL or C/C++? Give 2 reasons?

f) What is Viewport?

g) How many movements are required in Tower of Hanoi for 5 disks?

h) If we want to resize a 1024 X 768 image to one that is 640 wide with the same aspect ratio, what would be the height of the resized image? (8x2)

x-x-x