PC-135/AK

O-2/2041

COMPUTER GRAPHICS
Paper – MS(A)-221
IInd Year (Annual)

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *two* questions each from Section A and B. Section C will be compulsory.

SECTION – A

I. Explain the following in detail :

(a) Keyboard.

(b) Mouse.

(c) Printers.

(d) CRT monitors. (4×4=16)

II. Compare Raster Scan Dispaly System and Random Scan Display System. 16

III. Explain Bresenham and Mid point circle drawing algorithms. 16

IV. What is the viewing transformation? Discuss Cohen-Sutherland algorithm for line clipping in detail. 16

SECTION – B

V. Explain 3D Clipping in detail. 16

VI. Explain the Diffuse reflection. 16

VII. Explain any *two* hidden line and surface elimination algorithms. 16

VIII. Explain Phong Shading in detail. 16

SECTION – C

IX. Define the following in brief :

(a) Limitation of Z buffer algorithm.

(b) 3D Scaling Geometric Transformation.

(c) Viewing transformation.

(d) Flat panel display.

(e) Shearing.

(f) Transformation matrix for 2D rotation.

(g) Aspect ratio.

(h) Image scanner. (2×8=16)