BPF–2219

M.Sc. (Final) Examination, 2022
COMPUTER SCIENCE

Paper – MCS–202

Computer Graphics
(For Due and Imp. Students only)

Time : 3 Hours]   [*Maximum Marks : 100*

Note :–   Attempt *five* questions in all, selecting *one* question from each Unit. All questions carry equal marks.

Unit–I

1.   Discuss hardware and software requirement with input and output devices of Computer Graphics in detail.   20

2.   Explain Raster Scan Display and Random Scan Display in detail.   20

Unit–II

3.   Write down circle and polygon drawing algorithm using C++.   20

4.   What is scan conversion ? Explain scan conversion of a circle and Bresenham's Line Drawing Algorithm.   20

BR–219   (1)   **BPF–2219**   P.T.O.

Unit–III

5. What are homogenous coordinates ? Explain matrix representation of 2D Transformation. 20

6. What do you understand by clipping in computer graphics ? Explain line and polygon clipping in detail with suitable examples. 20

Unit–IV

7. Explain matrix representation of 3D-Transformation with suitable example. 20

8. Write short notes on :

   (a) Perspective and Parallel Projection 10

   (b) Depth buffer and Depth sorting method. 10

Unit–V

9. What are the types of shading model ? Explain in detail. 20

10. What are graphics standards ? Explain GKS and PHIGS in detail. 20