

TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS
EXAMINATION : JANUARY-2023
SEMESTER - I

Sub.: Computer Graphics and Multimedia (MSC – 102-22)

Date : 04/01/2023

Total Marks : 60

Time: 10.00 am to 12.30 pm

Instruction:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labelled diagram wherever necessary.

Q. 1. Answer the following in 2-3 lines. (Any 5) (10)

1. Differentiate between window port and view port.
2. What is reflection?
3. What are the important properties of Bezier Curve?
4. What is scan line algorithm?
5. What is Multimedia?
6. What is frame buffer?
7. What is Aliasing and Antialiasing?

Q. 2. Answer the following in short. (Any 4) (20)

1. Explain in detail about raster scan system and random scan system.
2. Explain DDA line drawing algorithm with example
3. What is called projection? Explain parallel projection.
4. Write the following syntax: a) rectangle() b) putpixel() c) initgraph()
d) detectgraph() e) setfillstyle()
5. Explain in detail about Bresenham's circle generating algorithm.
6. Explain working of CRT.

Q. 3. Answer the following in detail. (Any 3) (30)

1. What is line clipping? Explain Cohen-Sutherland line clipping algorithm with suitable example.
2. Explain Back face detection method and Depth buffer method
3. Explain Sutherland Hodgeman polygon clipping
4. Explain 2D transformation in detail.
5. Explain flood fill algorithm and boundary fill algorithm.
