

Roll No. : .....

Total No. of Questions : **10** ]

[ Total No. of Printed Pages : **2**

# **BFMS-442**

**M.Sc. (Final) Examination, 2023**

**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 at least *one* question from each Unit.  
All questions carry equal marks.

## **Unit-I**

1. Explain Input and Output devices in detail.
2. Explain working characteristics of CRT.

## **Unit-II**

3. Explain DDA and Bresenham's line drawing algorithm.
4. Explain midpoint circle algorithm in detail.

## **Unit-III**

5. Explain 2D Transformation including Translation, Rotation and Scaling in detail.
6. Explain Bezies and B-Spline curve in detail.

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#### **Unit-IV**

7. Explain Matrix Representation of 3D Transformation including Translation, Rotation and Scaling.
8. Write short notes on the following :
  - (i) Visible surface detection method
  - (ii) Back face detection method
  - (iii) Scanline method
  - (iv) Area subdivision method

5×4=20

#### **Unit-V**

9. Explain color models (RGB, CMY, HSV).
10. Explain solid modeling in detail.