Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

M.Sc.(Computer Science) (2019 & Onwards) (Sem.–3)

INTERACTIVE COMPUTER GRAPHICS

Subject Code : MSC-302

M.Code : 72104

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1. Define computer graphics. What are its characteristics? Explain the significance of display processors.

2. Write notes on :

   a) Applications of Computer Graphics

   b) Interactive Control Devices

SECTION-B

3. What is a line? Write and explain DDA algorithm for line drawing.

4. Write notes on :

   a) Cohen-Sutherland Clipping Algorithm

   b) Shearing Transformations

SECTION-C

5. What are geometric transformations? Explain how rotation and reflection are performed in 3D graphics?

6. What are projections? Differentiate parallel and perspective projections by taking suitable examples.

SECTION-D

7. Write short notes on :

   a) Painters Algorithm

   b) Gouraud shading

8. What is rendering? What is its need? Explain the concept of rendering by taking suitable example.

SECTION-E

9. Answer briefly :

   a) Define resolution.

   b) What are output devices?

   c) Define circle.

   d) What is the significance of window to viewport mapping?

   e) Define line clipping.

   f) What is 3D translation?

   g) What are oblique projections?

   h) What is use of phong shading?

   i) What is use of sub division algorithms?

   j) What are vanishing points?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.