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

Total No. of Questions : 18

M.Sc. (Computer Science) (2016&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. What do you understand by computer graphics? List real life applications of it.

2. Differentiate between random scan and raster scan systems in detail.

SECTION-B

3. Explain incremental and Bresenham algorithm for circle drawing with an example.

4. What do you understand by line clipping? Explain Mid-point sub-division line clipping algorithm with an example.

SECTION-C

5. What do you understand by geometric transformations? Explain scaling and rotation in two dimensional and three-dimensional space.

6. What do you understand by axonometric projections? Explain its different types.

SECTION-D

7. Explain the Gouraud and Phong Shading and differentiate between them on the basis of their working principle.

8. Explain the following :

   (a) Working of Painter's algorithm

   (b) Use of Dithering techniques in graphics.

SECTION-E

Answer briefly :

9. List merits and demerits of DVST.

10. How is incremental method for line drawing different from DDA?

11. What is a projection? List different types of projection.

12. What is a Viewport?

13. What is Polygon Clipping?

14. Which transformation is required to orient an object at 45 degree? How it will be done?

15. Define Reflection.

16. What is Refracted Light?

17. Define Persistence.

18. What is use of flood fill techniques?

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.