QP CODE: 25021048

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE / MERCY CHANCE **EXAMINATIONS, FEBRUARY 2025**

Sixth Semester

B.Sc Computer Science Model III

CORE COURSE - CC6CRT06 - COMPUTER GRAPHICS

2017 Admission Onwards

CDCC1DD7

Time: 3 Hours

Part A

Answer any ten questions. Each question carries 2 marks.

- 1. What are Random Scan systems ?
- 2. Write note on Light pen.
- 3. Define local coordinates and world coordinates.
- 4. Expand DDA.
- 5. Differentiate serif and sand serif fonts. Give examples.
- 6. Write transformation matrix for scaling using homogeneous co-ordinates.
- 7. What are condition for clipping a point (x,y) within a specified window?
- 8. What are applications of clipping ?
- What is perspective projection? 9.
- 10. What is octree representation?
- 11. What you mean by computer animation?
- 12. Explain Raster animation.

 $(10 \times 2 = 20)$

Part B

Each question carries 5 marks.

13. What are the applications of computer graphics?

Answer any six questions.

Page 1/2



Max. Marks: 80



- 14. Explain the working of vector display.
- 15. What do you mean by PHIGS workstation?
- 16. Draw a circle with radius 5 and centered at (4,5) using Midpoint Circle generating algorithm.
- 17. Explain on Scaling of a 2D object.
- 18. Explain on the following in picture construction a.Grid b. Gravity field.
- 19. Write about sweep representation of 3 dimensional objects.
- 20. What is constructive solid geometry method?
- 21. Explain keyframe systems.

(6×5=30)

Part C

Answer any **two** questions. Each question carries **15** marks.

- 22. Explain working of CRT.
- 23. Explain Bresenham's line algorithm.
- 24. Write and explain Cohen Sutherland line clipping algorithm.
- 25. What are the different 3 dimensional object representation methods? Explain any three of them.

(2×15=30)