QP CODE: 24026854

Reg No 1 Name Ξ.

B.Sc / BCA DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE **EXAMINATIONS, OCTOBER 2024**

Third Semester

Core Course - CS3CRT07 - COMPUTER GRAPHICS

Common to Bachelor of Computer Applications & B.Sc Information Technology Model III

2017 Admission Onwards

FD332A77

Time: 3 Hours

core

Part A

Answer any ten questions.

Each question carries 2 marks.

- 1. What is the role of computer graphics in entertainment?
- List the merits and demerits of DVST. 2.
- 3. What is pixel?
- What is the disadvantage of DDA Algorithm? 4.
- 5. What are the two categories of Typefaces?
- 6. Illustrate the need of homogeneous coordinates.
- 7. Difference between window and viewport.
- 8. Explain point clipping.
- 9. What is Space-partitioning Representations?
- 10. What are octrees?
- 11. How does scripting system works?
- 12. What is morphing?

 $(10 \times 2 = 20)$

Part B

Answer any six questions. Each question carries 5 marks.

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Max. Marks: 80

- 13. Discuss about various coordinate representation schemes in graphics system.
- 14. Using Bresenham's Line Drawing Algorithm , digitlize the line with endpoints (20,10) and (30,18).
- 15. Construct a circle with radius 10, using Midpoint Circle Algorithm.
- 16. Distinguish grid and gravity field.
- 17. Write the four cases of polygon clipping against one edge.
- 18. What is the importance of wireframe in 3 Dimensional object creation.
- 19. Explain CSG with the help of figures.
- 20. Discuss about raster animation.
- 21. Describe about different motion specifications.

(6×5=30)

Part C

Answer any two questions.

Each question carries **15** marks.

- 22. Discuss about various flat panel displays.
- 23. Describe the various 2D transformations with their matrix forms.
- 24. Explain Sweep representation and CSG in Detail with proper figures.
- 25. Explain the importance of key frame in Animation.

(2×15=30)