QP CODE: 19102008

Reg No : .....

Name : .....

B.Sc. DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Third Semester

CORE COURSE - CS3CRT07 - COMPUTER GRAPHICS

(Common to B.Sc Information Technology Model III, Bachelor of Computer Application)

2017 Admission Onwards

C85BE9A5

Maximum Marks: 80 Time: 3 Hours

Part A

*Answer any **ten** questions.*

Each question carries 2 marks.

1. What do you mean by retracing? Define horizontal as well as vertical retracing.
2. What are electroluminescent diplays?
3. Write a brief notes on Light Pen
4. What are the conditions for checking the sign of circle function in Midpoint circle Algorithm?
5. Where is Bitmap fonts stored?
6. Illustrate the need of homogeneous coordinates?
7. Define viewing transformation.
8. Explain point clipping
9. What is Sweep Representation?
10. Define voxels of octrees.
11. Write notes on Key frame systems.
12. Write notes on Direct Motion Specification.

(10×2=20)

Part B

*Answer any **six** questions.*

Each question carries 5 marks.

13. Briefly discuss about Presentation Graphics.
14. Illustrate Digital Differential Analyzer Algorithm by generating a line

15. Illustrate Bresenham's Line Drawing Algorithm by generating a line

16. What do you know about rotation ? Derive the matrix equation for 2D rotation

17. Describe any two interactive picture construction techniques

18. Explain in detail the difference between Parallel Projection and Perspective projection.

19. Discuss about Boundary Representations and Space-Partitioning Representation.

20. Discuss about raster animation?

21. Diffrentiate keyframe Systems from paramererized systems?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Explain the working of Cathode Ray Tube with suitable diagram.

23. Discuss about Sutherland-Hodgeman polygon clipping in detail with example

24. Describe Constructive Solid Geometry Methods and Sweep Representation in detail.

25. Explain the importance of key frame in Animation

(2×15=30)