LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – APRIL 2017

CS 5400- COMPUTER GRAPHICS

Date: 02-05-2017   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

PART –A

Answer all the questions   **(10 x 2 = 20)**

1. Define the term computer graphics.
2. List out the merits and demerits of DVST.
3. What are the various attributes of a line?
4. Write down the different methods of smoothly joining two line segments.
5. What is scaling?
6. Distinguish between window port & view port.
7. Mention any four 3D display techniques.
8. What is reflection?
9. What is anti aliasing?
10. What is view reference point?

PART – B

Answer all the questions   **(5 x 8 = 40)**

11. a) Explain in short about Bresenham's line drawing algorithm.
    (or)
    b) Write short notes on Joystick and Trackball.

12. a) Write down the attributes of characters
    (or)
    b) Write about 2D – geometric Transformation in (i) translation (ii) scaling

13. a) Explain window to viewport coordinate transformation.
    (or)
    b) List the different types of text clipping methods available.

14. a) Give an account of 3D rotation.
    (or)
    b) Explain the following types of 3D – Transformation (i) Rotation (ii) shearing

15. a) Differentiate between Parallel and Perspective Projection.
    (or)
    b) Explain about the back face method.

PART – C

16. a) Explain the midpoint circle drawing algorithm with example
    b) Differentiate between:
        a. Raster scan and random scan display
        b. LED and LCD

17. a) What are the interactive picture construction techniques? Explain
    b) Discuss in detail about point clipping and line clipping with examples.

18. a) What is projection? Explain in detail.
    b) Explain the depth buffer method.

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