NOVEMBER 2019 **51307/SAZ4C**

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is the difference between Interactive and Non Interactive graphics?
2. Name any two video display devices.
3. Which input device is good for both pointing and positioning device?
4. Give the expansion for DDA.
5. Name any two line attributes.
6. Define shearing.
7. What is the need for scaling an object?
8. Define clipping.
9. What is meant by Projection?
10. Give the purpose of polygon tables.
11. How to define World Coordinates?
12. Name any two hidden line elimination methods.

II BCA - Computer Graphics.

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. How a shadow mask CRT works?

14. How the keyboard acts as a good input device?

15. Describe the Bresenham's algorithm for generating straight lines.

16. Discuss on color and grayscale levels.

17. What is meant by composite transformations?

18. Explain the concept of Depth Cueing.

19. How to perform the transformation from world to view coordinates?

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Explain the following :

    (a) Raster – Scan systems (5)

    (b) Random – Scan systems. (5)

21. Write the mid point generating algorithm for

    (a) Circle (5)

    (b) Ellipse. (5)

22. Describe the two dimensional rotating algorithm for the object

    (a) through origin (5)

    (b) through any arbitrary points. (5)

23. Explain the following :

    (a) Parallel projection (5)

    (b) Perspective projection. (5)

24. Discuss the following algorithms

    (a) Depth Buffer method (5)

    (b) A – Buffer method. (5)