

B.E. SEMESTER VI (CE/IT)
COMPUTER GRAPHICS(160703)

ASSIGNMENT/QUESTION BANK

1. Define the following in brief

1. Persistence
2. Resolution
3. Horizontal retrace
4. Vertical retrace
5. Scan conversion
6. Coherence property
7. Aliasing
8. Aspect ratio
9. Pixel
10. Morphing
11. DVST
12. Shadow mask
13. Visualization
14. Image processing
15. Graphical user interface

2. What is aliasing? Discuss all ant aliasing techniques in detail.

3. Explain the working of Cathode Ray tube.

4. Briefly explain the any five computer graphics applications.

~~5. What is frame buffer? How long would it take to load a 1280 by 1024 frame buffer with 12 bits per pixel if transfer rate is 1Mbps?~~

6. Discuss morphing.

7. What is pixel phasing?

8. Differentiate raster scan display and random scan display.

9. For what purpose winding number method is used? What is a winding number?

10. Describe DDA line drawing Algorithm.

11. Explain advantages and disadvantages of DDA Algorithm.

12. "Bresenham's Line Drawing Algorithm uses the concept of Recursion" justify the sentence.

~~13. How to Load Frame Buffer.~~

14. For circle drawing algorithm, prove that $p_0 = 1 - r$ where r = radius of circle p_0 = initial decision parameter. If $r = 8$ then determine and show the pixel positions along the circle octant in first quadrant from $x=0$ to $x=y$.

15. Explain the ellipse algorithm in brief.

16. Which is the simplest and commonly used image space approach to eliminate hidden surfaces? Explain.

17. Derive decision parameter for the midpoint ellipse algorithm. Assume that start position is $(x, 0)$ and points are to be generated along the curve path in counter-clockwise order.

18. Discuss the techniques for identifying interior and exterior region for self-intersecting