

ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE
B.E. / B.TECH. DEGREE EXAMINATIONS: NOV / DEC 2011
REGULATIONS: 2008
SIXTH SEMESTER: CSE
080230030 - COMPUTER GRAPHICS

Time: 3 Hours

Max. Marks: 100

PART - A

(10 x 2 = 20 Marks)

ANSWER ALL QUESTIONS

1. Differentiate between Random Scan and Raster Scan displays
2. What is scan conversion?
3. What do you mean by aspect ratio?
4. Can you use line clipping algorithm to clip a polygon? Justify
5. What do you mean by Shearing?
6. What is a vanishing point?
7. What is a viewing pipeline?
8. What are the steps in rotating a triangle ABC by an angle θ with respect to an arbitrary point P?
9. Define Illumination.
10. What are the various applications of Computer graphics?

PART - B

(5 x 16 = 80 Marks)

ANSWER ALL QUESTIONS

11. (a) Explain about Cathode Ray Tube in detail

(OR)

- (b) Explain Cohen Sutherland's line clipping algorithm with an example

12. (a) Scale the triangle with vertices A(0,0), B(1,1), c(5,2) to twice its size along X-axis and to half its size along Y-axis.

(OR)

(b) Rotate the above triangle ABC by 90 degrees with respect to the point C (5,2).

13 (a) Explain in detail the three-dimensional transformations (Translation, Scaling, and Rotation) giving their matrix representations

(OR)

(b) What are the methods involved in projecting three dimensional objects on a two dimensional view plane? Explain

14. (a) List down the various visible surface detection algorithms and explain any two in detail.

(OR)

(b) Compare the various representation methods for solids.

15. (a) Discuss the Illumination and shading models for polygons.

(OR)

(b) Explain the OpenGL features for graphics programming.

*****THE END*****

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