CG : IV SEM CO : CBSGS

12/06/15

81 copies

Q.P. Code : 3555

(3 Hours) **[Total Marks : 80**

N.B.: (1) Question No. 1 is compulsory.
(2) Attempt any three of remaining five questions.
(3) Assume any suitable data if necessary and clearly state it.

1. (a) What are aliasing and antialiasing? Explain any one antialiasing method. [05]
   (b) What are the disadvantages of DDA algorithm? [05]
   (c) What is viewing transformation? [05]
   (d) Define Shearing and give example. [05]

2. (a) Explain the midpoint circle generating algorithm. [08]
   (b) Explain the steps used in rotation of 2-D object about an arbitrary axis and derive the matrices for same. [12]

3. (a) Expain Liang – Barsky line clipping algorithm with suitable example. [10]
   (b) Explain Sutherland – Hodgeman polygon clipping algorithm in detail. [10]

4. (a) What are Parallel and Perspectiveprojections and derive the matrix for perspective projection. [10]
   (b) Explain the properties of Bezier curves. [10]

5. (a) What is the use of Scan line method and explain all the steps. [10]
   (b) Define Koch curve? How do you construct the Koch curve? [10]

6. Write a short note on any four of the following [20]
   (a) OpenGL
   (b) Area Subdivision method
   (c) Composite transformation
   (d) Sweep representations
   (e) Flood fill algorithm

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