Code: R7310503

R07

III B. Tech I Semester (R07) Supplementary Examinations, May 2012
COMPUTER GRAPHICS
(Common to CSE, IT, CSS & ECC)

Time: 3 hours   Max Marks: 80

Answer any FIVE questions
All questions carry equal marks
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1 a) Explain about CAD applications.
   b) Distinguish between raster-scan displays and random-scan displays.

2 a) Illustrate with an example DDA algorithm.
   b) Explain about various inside-outside tests for identifying interior and exterior regions of object.

3   Determine a sequence of basic transformations that are equivalent to the x-direction shearing matrix.

4   Derive the window-to-viewport transformation equations by first scaling the window to the size of the viewport and then translating the scaled window to the viewport position.

5   Explain sweep representation for solid modeling.

6   Derive the matrix for parallel projection.

7   Implement the depth buffer method to display the visible surfaces of a given polyhedron. How can the storage requirements for the depth buffer be determined from the definition of the objects to be displayed?

8   Design a storyboard layout and accompanying key frames for an animation of a single polyhedron.

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