R09

Code: 9A05503

B.Tech III Year I Semester (R09) Supplementary Examinations June 2016

COMPUTER GRAPHICS

(Common to CSE and ECC)

Time: 3 hours Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 Write a short notes on:
   (a) Cathode – Ray Tube.
   (b) Vector scans display.
   (c) Raster scans display.

2 (a) Explain midpoint circle generation algorithm taking a simple example.
   (b) Given a radius r =7, demonstrate the midpoint circle algorithm by determining positions along the circle octant in the first quadrant from x=0 to x=y by taking the initial decision parameter.

3 What is perspective projection? Derive the transformation matrix for perspective projection.

4 (a) How quantify interaction task involves in numerical values? Justify your answer.
   (b) Explain the six regions of mouse movements in 3D along the principal axes.

5 (a) Compare and contrast Bezier and Hermite curves.
   (b) Write a brief note on parametric bicubic surfaces.

6 Write notes on:
   (a) Three dimensional transformations.
   (b) Sweep representations.

7 What is CIE chromaticity diagram in computer graphics? Explain its usage with example.

8 (a) How is a transparent surface modeled? What is Snell's law?
   (b) Explain in detail about texture mapping.

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