Code: 9A05503

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

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 (a) Discuss about basic interaction handling.
   (b) If we want to resize a 1024 x 1024 image to 460 pixels wide with the same aspect ratio. What would be the height of resized image?

2 (a) Explain Bresenham's circle drawing algorithm.
   (b) Explain the process of anti-aliasing in display graphics.

3   What is parallel projection? Derive a transformation matrix for parallel projection.

4   Explain the following:
   (a) Traversal of a three-level hierarchy.
   (b) Traversal state stack.
   (c) Annotated structure network.

5   What is a spline curve? Explain the role of blending function to plot a spline curve.

6 (a) What is meant by extrusion in computer graphics? Explain it with suitable example.
   (b) Write notes on sweep representation of solid object.

7   Explain the following:
   (a) Halftoning.
   (b) Dithering.

8   Compare the following:
   (a) Global Illumination Pipelines.
   (b) Local Illumination Pipelines.

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