

Code No: R31054

R10

Set No: 1

III B.Tech. I Semester Supplementary Examinations, June/July - 2014

COMPUTER GRAPHICS

(Common to Computer Science Engineering & Information Technology)

Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain in detail about Raster Scan system?
(b) Explain in detail about Ellipse generation algorithm?
2. Explain in detail about Scan line Polygon Filling Algorithm?
3. (a) Explain in detail about Translation Transformation with an example?
(b) Explain about Matrix Representation and Homogeneous co-ordinates?
4. Explain in detail about Cohen Sutherland Line Clipping algorithm?
5. (a) Explain about Quadric surfaces?
(b) Define B-Spline Curves? List out the Properties of B-Spline Curves?
6. Explain in detail about Rotations with Quaternions?
7. (a) Explain about Back Face Detection.
(b) Explain about Octree Method.
8. Define Animation? Explain about the design steps involved in the design of Animation sequence?

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Set No: 2

III B.Tech. I Semester Supplementary Examinations, June/July - 2014

COMPUTER GRAPHICS

(Common to Computer Science Engineering & Information Technology)

Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Define Computer Graphics? Explain about the Application of Computer Graphics?
(b) Explain in detail about Random Scan system.
2. (a) Explain about Non zero winding number rule.
(b) Explain about Midpoint Circle algorithm.
3. (a) Explain in detail about Rotation Transformation.
(b) Differentiate between General pivot point rotation and General fixed point scaling.
4. (a) Explain briefly about Point, Line, Text and Curve Clipping.
(b) Explain about Weiler –Atherton Polygon Clipping Algorithm.
5. (a) Explain about Hermit and Cardinal interpolation.
(b) List out the Advantages of B-Splines over Bezier Splines.
6. Explain in detail about 3D Transformation Pipeline from Modeling Co-ordinates to Final device Co-ordinates.
7. (a) Explain about Depth Buffer Algorithm.
(b) Explain about Depth Sorting Method.
8. (a) Explain about Raster Animation.
(b) Explain about the Morphing?

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Set No: 3

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COMPUTER GRAPHICS

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Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Explain in detail about Bresenham's Algorithm?
2. (a) Explain about Scaling Transformation with an example?
(b) Explain about Transformations between Co-ordinates systems?
3. (a) Explain about polypoints and wcpants.
(b) Explain about Boundary Fill Algorithm.
4. (a) Explain in detail about the two dimensional viewing Transformation Pipeline?
(b) Explain about Exterior Clipping.
5. (a) Explain about Spline Specification.
(b) Explain about Cubic Bezier Curves.
6. Explain in detail about General Perspective Projection Transformation.
7. (a) Explain about Scan Line Method.
(b) Explain about BSP tree Method.
8. Explain in brief about the Computer Animation Languages.

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Set No: 4

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Time: 3 Hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Explain about the Polyline () and Fill Area ()?
2. (a) Explain in detail about Flood Fill Algorithm.
(b) Explain about Cell Array ().
3. (a) Explain in detail about Reflection Transformation.
(b) Explain about Affine Transformation.
4. (a) Explain in detail about Viewing Co-ordinate reference Frame.
(b) Explain about Window to View port Co-ordinate Transformation.
5. (a) Explain about Bezier Curve? List out the Properties of Bezier curve.
(b) Explain about Beta and Rational Splines.
6. Explain in brief about Orthographic projections of an object, displaying plan and elevation views?
7. Explain in detail about Area Subdivision method.
8. Explain in detail about Motion Specification.
