

Code: 9A05503

R09

B.Tech IV Year I Semester (R09) Supplementary Examinations, May 2013

COMPUTER GRAPHICS

(Computer Science and Systems Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) What are the applications of computer graphics? Explain.
(b) Explain about interaction handling in computer graphics.
- 2 (a) Discuss at least two character generation techniques with examples.
(b) What do you mean by polygon filling? Explain about inside test for a polygon.
- 3 What is projection? Derive the matrices for parallel and perspective projections.
- 4 (a) Discuss the limitations of hierarchical modeling in PHIGS.
(b) Elaborate on hierarchy in geometric model.
- 5 (a) Write short notes on polygon rendering techniques.
(b) What are the different techniques of curve generation? Discuss any one technique in detail.
- 6 (a) Write and explain about cell decomposition.
(b) How binary space partitioning trees are used to divide space by planes?
- 7 (a) In which color models are the rules of color harmony cost easily applied?
(b) Write an algorithm for converting from HLS to RGB color space.
- 8 Write short notes on:
 - (a) Polygon mesh shading
 - (b) Phong shading
 - (c) Texture mapping
