

--	--	--	--	--	--	--	--

B.Tech. Degree V Semester Special Supplementary Examination
August 2015

CS 1504 COMPUTER GRAPHICS
(2012 scheme)

Time : 3 Hours

Maximum Marks : 100

PART A
(Answer *ALL* questions)

(8 × 5 = 40)

- I. (a) Explain Bresenham's line drawing algorithm.
(b) What is a sorted edge table?
(c) Explain window to viewport transformation.
(d) Write the matrix representation for 2D transformation.
(e) What is meant by vanishing point?
(f) Explain Painter's algorithm.
(g) Define chromaticity and chromaticity diagram.
(h) What is texture mapping?

PART B

(4 × 15 = 60)

- II. (a) Explain the basic operation of a CRT. (8)
(b) What is flat panel display? Explain its types. (7)

OR

- III. Explain boundary fill algorithm and flood fill algorithm for filling a polygon. (15)

- IV. Explain Sutherland Hodgeman polygon clipping algorithm with an example. (15)

OR

- V. Explain : (15)
(i) Ellipsoid (ii) Torus (iii) Blobby objects
(iv) Interpolation splines (v) Convex hull

- VI. What are the 3D transformation methods? Explain each with matrix representation. (15)

OR

- VII. (a) Explain A-buffer method and Z-buffer method for visible surface detection. (8)
(b) Explain parallel projection and perspective projection. (7)

- VIII. What are the different polygon rendering methods? (15)

OR

- IX. Explain RGB Color system and HLS Color system. (15)