C 36519

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Name.....

Reg. No.....

EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2004

CSE 803—COMPUTER GRAPHICS

(Old Scheme)

Time : Three Hours

Maximum : 100 Marks

Answer **all** *the questions.*

I. 1 List out the common questions raised w.r.t. interactive graphics.

2 Write a note on plasma panel.

3 Explain the inside-outside test.

4 Discuss any *five* methods related to segmented display file management.

5 Outline the working of a mouse.

6 Explain the use/applications of Raster graphics.

7 How to model objects (3D) ?

8 Define : Shading Image processing (in few words).

(8 × 5 = 40 marks)

II. (a) (i) Explain the circle generation algorithm in detail. (8 marks)

(ii) Define : (7 marks)

Persistence.

Aspect Ratio.

Resolution.

Graphics card.

Raster.

Or

(b) (i) Discuss the types of CRT in detail. (8 marks)

(ii) Tabulate the points generated from (0, 0) to (15, – 7) using :

(i) Simple DDA.

(ii) Symmetric DDA.

III. (a) (i) Discuss the types of 2D transformations with examples. (7 marks)

(ii) Explain character/Text clipping in detail. (8 marks)

Or (7 marks)

Turn over

(b) (i) Explain the Sutherland-Hodgman algorithm for polygon clipping. (8 marks)

(ii) Explain the display file structure schemes. (7 marks)

IV. (a) (i) Describe the characteristics of light pen with a neat diagram. (8 marks)

(ii) Explain the various techniques associated with input selection. (7 marks)

Or

(b) (i) Discuss Boundary fill and flood fill algorithms. (8 marks)

(ii) Explain the input functions related to input devices. (7 marks)

V. (a) (i) Explain priority algorithm (Pointer's) algorithm used for scan conversion. (8 marks)

(ii) Discuss the features of any graphics application of your choice. (7 marks)

Or

(b) (i) Explain Z buffer algorithm and its limitations. (10 marks)

(ii) Define :

Halftoning.

Antialiasing.

(5 marks)