C 27025

Name.....

Reg.No.....

# EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
## JUNE 2003

CSE 803—COMPUTER GRAPHICS

Time : Three Hours Maximum : 100 Marks

*Answer* **all** *the questions.*

I. 1. Discuss the questions often raised with reference to interactive computer graphics.
2. Explain the features of DVST.
3. Highlight the end point check algorithm used for clipping.
4. Write a small note on Tablets.
5. Differentiate inking and painting.
6. List any *five* techniques for achieving realism in 3D objects.
7. Define a raster.
8. Differentiate windowing and viewporting transformations.

(8 × 5 = 40 marks)

II. (a) (i) Explain : Symmetrical DDA; Simple DDA. algorithms used for line drawing. (10 marks)

(ii) Describe the working of plasma panel. (5 marks)

*Or*

(b) (i) Explain Bresenham's circle generation algorithm. (10 marks)

(ii) In few words, explain the working of Laser Scan display.

III. (a) (i) Explain the Translation, scaling and rotation transformations with examples. (10 marks)

(ii) Explain midpoint subdivision algorithm. (5 marks)

*Or*

(b) (i) Discuss the working principle of Light pen. (8 marks)

(ii) What do you mean by handling events ? Explain. (7 marks)

IV. (a) (i) Compare flood fill with houndary fill algorihm. (8 marks)

(ii) What is halftoning ? Explain. (7 marks)

*Or*

(b) Write a note on scan conversion algorithms. (15 marks)

V. (a) (i) Describe : Parallel and perspective projections. (8 marks)

(ii) How to define curves ? What are the properties associated with drawing curves ? (7 marks)

*Or*

(b) (i) Explain any hidden line algorithm in detail. (8 marks)

(ii) Discuss any Graphics application development. (7 marks)