

Roll No. ....

Total Pages : 02

BT-8/D-18

38002

INTERACTIVE COMPUTER GRAPHICS

CSE-404

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt Five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

Unit I

- 1. (a) Difference between Raster scan and Random scan display system. 10
- (b) Explain the working of LCD and LED. 10
- 2. What do you mean by Refresh Rate ? Why we use frame buffer in resolution devices. Discuss the name of some high resolution devices. 20

Unit II

- 3. (a) Explain midpoint circle drawing algorithm. Plot a circle by using midpoint algorithm whose radius is 8 centimeter. 10

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- (b) What do you mean by 2D Transformation ? Explain translation, shearing, rotating and scaling in matrix representation. 10

- 4. What do you mean by clipping ? Explain Cohen-Sutherland line clipping algorithm with example. 20

Unit III

- 5. (a) Explain various pointing and positioning devices. Explain the working of light pen and digitizing tablet. 10
- (b) Explain Rubber Band Method for drawing a straight line segment. 10
- 6. Discuss the various Zooming and Panning clipping techniques. 20

Unit IV

- 7. Discuss 3D transformation. Explain various 3D geometrical transformation. 20
- 8. Write notes on the following :
  - (a) Hidden line 10
  - (b) Concept of parallel projection. 10

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