(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2167 | **Roll No.**

B.Tech.

(SEM. V) ODD SEMESTER THEORY EXAMINATION 2010-11

COMPUTER GRAPHICS

Time : 2 Hours   *Total Marks : 50*

Note : Attempt **all** questions.

1. Answer any **two** parts :   **(6×2=12)**

    (a) What are the criteria that should be satisfied by a good line drawing algorithm ? Explain.

    (b) Explain the mid point circle generating alogorithm.

    (c) Write a short note on the following :

        (i) Random scan and Raster scan display

        (ii) Frame buffer and video controller.

2. Answer any **two** parts :   **(6×2=12)**

    (a) Describe the Cohen Sutherland line clipping algorithm with suitable example.

    (b) Discuss the following transformations with a relevant example :

        (i) Composite transformation

        (ii) Reflection and shearing.

    (c) Write an algorithm for polygon clipping.

3. Write short notes on any **two** of the following :   (6×2=12)

   (a) 3-D transformation

   (b) 3-D projection

   (c) 3-D clipping.

4. Answer any **two** parts :   (7×2=14)

   (a) Write an algorithm to draw Bezier curves.

   (b) What are the various back face detection algorithms ? Explain any one of them.

   (c) Explain the following :

      (i) Illumination models

      (ii) Text clipping.