Computer Graphics
(IT-6, Dec2004)

Note: Attempt any five questions.

1. a) Explain DDA line generation algorithm.
   b) Using a scale factor of 2, magnify triangle ABC with vertices at A(0,0), B(5,0) and C(3,5) keeping the vertices C(3,5) fixed.

2. a) What are positioning devices? Explain Mouse?
   b) Explain CRT in detail.

3. a) What are basic 2-D graphic transformation? Explain them with example.
   b) Determine the form of transformation matrix for a reflection about an arbitrary line with example.

4. a) Explain the polygon clipping algorithm.
   b) What are the drawbacks of using mid-point sub-division method over edge inter-section technique in clipping?

5. What are applications of raster scan graphics? Explain the solid area scan conversion with an example.

6. a) Why hidden surface algorithm are needed?
   b) Explain the Depth-Buffer algorithm.

7. What is B-spline curve? Explain the procedure for drawing the B-spline curve.

8. Write notes on (any two):-
   a) Devices independent graphic system.
   b) Windowing clipping
   c) Graphic kernel system.