Total No. of Questions—**8**] [Total No. of Printed Pages—**2**

Seat No.	

[5152]-576

S.E. (II Sem.) (Information Technology) EXAMINATION, 2017

COMPUTER GRAPHICS

(2015 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. **:—** (*i*) Neat diagrams must be drawn wherever necessary.
(*ii*) Figures to the right indicate full marks.
(*iii*) Assume suitable data, if necessary.

1. (*a*) Rasterize a line from (0, 0) to (8, 4) using DDA algorithm. [6]

(*b*) Explain with suitable diagram different methods for seed point inside test for polygon. [6]

Or

2. (*a*) What are the steps of Bresenham's circle Algorithm ? Explain with example. [6]

(*b*) Perform a 45º rotation of Square ABCD, A(0, 0), B(5, 0), C(5, 5), D(0, 5) about the origin in anti-clockwise direction. [6]

3. (*a*) Explain different types of parallel projections. [6]

(*b*) Explain Cohen Sutherland line clipping method with suitable example. [6]

P.T.O.

Or

4. (*a*) Explain 3D reflection about xy, yz and xz plane. [6]

(*b*) Explain segment creation and deletion algorithm. [6]

5. (*a*) Draw and explain block diagram of i860 microprocessor. [7]

(*b*) What is shading ? What steps are required to shade an object using Phong shading algorithm ? [6]

Or

6. (*a*) What are the steps in design in animation sequence ? Describe about each step briefly. [7]

(*b*) How is Polygon shading different from Polygon filling ? Explain Gourad shading briefly. [6]

7. (*a*) Explain Bezier method of curve drawing. [7]

(*b*) What is curve interpolation ? As far as splines are concerned, what do Bezier and B-splines curves indicate ? [6]

Or

8. (*a*) Explain algorithm for fractal lines with the example of generation of coastlines. [7]

(*b*) Write short notes on : [6]

(*i*) Fractals and topological dimensions

(*ii*) Koch curve.