Roll No. $\square$ Total No. of Pages: 02
Total No. of Questions : 09

> B.Tech.(CSE) (Sem.-5)
> COMPUTER GRAPHICS
> Subject Code : CS-309
> Paper ID : [A0468]

Time : 3 Hrs.
Max. Marks : 60

## INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

## SECTION-A

1. Write briefly :
a) Describe point clipping.
b) What is a vanishing point?
c) Why are transformations required?
d) List different types of visible surface algorithms.
e) Write down any two lines attributes.
f) Differentiate window and view port.
g) What are spline curves?
h) Fractals.
i) What is a shadow?
j) List the various input devices for graphics.

## SECTION-B

2. Explain the midpoint Ellipse drawing algorithm.
3. Differentiate oblique and orthogonal projections.
4. What is the rotation transformation about the point $(x, y)$ ?
5. Write short notes on (any two)
a) Raytracing
b) Gourard and Phong shading
c) Bezier curves
6. Describe boundary filling algorithm with a suitable example.

## SECTION-C

7. Give Bresenham's line drawing algorithm. Explain with suitable example.
8. Differentiate between:
a) Raster and Random Scan.
b) Parallel and Perspective Projections.
9. Explain in detail the Cohen-Sutherland line clipping algorithm with an example.
