## 2022

(February )

## COMPUTER SCIENCE

( Honours )

## ( Computer Graphics )

## ( Theory )

[ CS-502AT ]
Marks : 38
Time : 2 hours
The figures in the margin indicate full marks for the questions

Answer one question from each Unit
UniT-I

1. Explain the working principles of raster scan systems.
2. Write a short note on four input devices.
UniT—II
3. Compare any two fill-area algorithms.
4. Explain different issues involved to maintain geometric properties of a displayed object.
UnIT-III
5. Find the 2-D transformation matrix for rotation of a point $p(x, y)$ about the point $(0,0)$ by an angle $\phi$ in the clockwise direction.
6. Find transformation matrix for shear transformation.
UnIT-IV
7. Compare any two clipping algorithms.
8. Explain the concept of window and viewport with respect to 2-D viewing in computer graphics.
Unit—V
9. Calculate 2-D coordinate points to draw a curve passing through $(10,10),(20,30),(25,40)$ and $(40,10)$ using either Bezier curve algorithm or Hermite spline algorithm. Assume and specify suitable required parameters.
10. Write short notes on parallel projection and perspective projection.
