

- 11 GIF stands for
- Global Image Format
 - Graphics Interchange Format
 - Graphics Image Format
 - None of the above
- 12 In CRT, the electron intensity is adjusted using
- Accelerating anode
 - Control grid
 - Electron gun
 - Focusing anode
- 13 The rectangle portion of the interface window that defines where the image will actually appear are called
- Transformation viewing
 - View port
 - Clipping window
 - Screen coordinate system
- 14 The region code of a point is 1001. The point is in the region of window.
- Top right
 - Top left
 - Bottom left
 - Bottom right
- Q.2** (a) Write short note on Flood fill algorithm for 8 connected region . **03**
- (b) Write the differences between Random Scan display and Raster scan Display. **04**
- (c) Derive all necessary formulas for Bresenham line drawing algorithm. Bresenham line drawing algorithm is used to draw a line from (01, 02) to (7, 5). Determine all the pixels which will be on as the line is drawn. **07**
- OR**
- (c) Write the Midpoint Ellipse generation algorithm. **07**
- Q.3** (a) Explain Starbust method used for Character generation. **03**
- (b) Explain scaling in 2D Transformations **04**
- (c) Explain Scanline polygon fill algorithm in detail. **07**
- OR**
- Q.3** (a) List merit and demerit of DVST. **03**
- (b) What is aliasing? How to compensate the aliasing? Explain in Brief. **04**
- (c) What is 2D shear transformation? Covert the unit square to shifted parallelogram using x-direction shear transformation operation where parameter $sh_x = \frac{1}{2}$ and $Y_{ref} = -1$ and unit square dimensions are (0, 0), (1, 0), (0, 1) and (1, 1). **07**
- Q.4** (a) Explain non zero winding rule. **03**
- (b) Explain reflection with respect to any plane in 3D transformations. **04**
- (c) Write Nicholl-Lee-Nicholl line clipping algorithm. How NLN line clipping algorithm reduce the computation of unnecessary intersection point. **07**
- OR**
- Q.4** (a) List the properties of Bazier curves. **03**
- (b) Explain Working principle of Plasma Panel Display. **04**
- (c) Clip the line PQ having coordinates A(4,1) and B(6,4) against the clip window having vertices A(3,2) , B(7,2) , C(7,6) and D(3,6) using Cohen Sutherland line clipping algorithm. Mention the limitations of algorithm. How it can be overcome? **07**
- Q.5** (a) How coordinate values of selected screen position is determined in touch screens? **03**
- (b) Briefly Explain RGB color model. **04**
- (c) What is depth buffer method? Write and explain the steps of a depth buffer algorithm. **07**
- OR**

- Q.5** (a) Briefly explain parametric cubic curve and its applications **03**
(b) Briefly explain Z-buffer visible surface determination algorithm. **04**
(c) Explain following color model: **07**
1) XYZ color model.
2) CMY Color model.
