

Roll No. ....

Total No. of Questions : 13]

[Total No. of Pages : 02

**J-3183[S-1039]**

**[2037]**

**BCA (Semester - 5<sup>th</sup>)**

**COMPUTER GRAPHICS (BCA - 503)**

**Time : 03 Hours**

**Maximum Marks : 75**

**Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

**Section - A**

**Q1)**

**(15 × 2 = 30)**

- a) What is a Data Glove?
- b) Why won't a light pen work with a liquid crystal display (LCD)?
- c) Differentiate Laser and Inkjet printer.
- d) What is the standard used for transferring information from Keyboard to computer? How many bits are required for it and why?
- e) What are the disadvantages of developing a specialized keyboard with commands printed on the function keys?
- f) What are the some of the more popular alternatives to the raster scan CRT?
- g) What are the major components of Plasma Display?
- h) An object is defined with respect to a coordinate system whose units are measured in feet. If an observer's coordinate system uses inches as the basic unit, what is the coordinate transformation used to describe object coordinates in observer's coordinate system?
- i) How the effects of aliasing can be minimized?
- j) Explain the term persistence.
- k) Write the common sub categories of the parallel projection.
- l) Write down steps for complete 3D viewing process.
- m) What are the various types of Mouse available in the Market?
- n) Define Aspect ratio.
- o) Define the term Clipping and Shielding.

**P.T.O.**

## Section - B

(9 × 5 = 45)

- Q2)** Write a Note on Trackball.
- Q3)** Explain the working of a Optical Mouse.
- Q4)** What are the Drum Plotters? Explain the various components of Drum Plotter.
- Q5)** What are the Impact and non impact printers? Explain any one type of these printers.
- Q6)** What are the steps required to fill a region using the boundary fill method?
- Q7)** What are the steps required to scan convert an ellipse using the Bresenham's algorithm?
- Q8)** Draw a diagram of a CRT and label its important parts.
- Q9)** Explain the Plasma Displays and memory tube displays.
- Q10)** What do you mean by the projections? What are its types? Explain them.
- Q11)** Write down the three sequences of transformations for complete 3D viewing process.
- Q12)** Perform a 45 degree rotation of a triangle A (0, 0), B (1, 1), C (6, 3) about origin and about P (-1, -1).
- Q13)** Write a Note on the Coordinate Transformations.

