

Roll No.

Total No. of Questions : 9]

Paper ID [CS309]

[Total No. of Pages : 02

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Semester - 5th)

COMPUTER GRAPHICS (CS - 309)

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) What is clipping?
- b) Define the term aspect ratio.
- c) Define the term antialiasing.
- d) Differences between Windowing and Viewing.
- e) What do you understand by the term morphing?
- f) What is uniform and differential scaling?
- g) What is a vanishing point?
- h) Give matrix for reflection transformation.
- i) Why are transformations required?
- j) List different types of visible surface algorithms.

Section - B

(4 × 5 = 20)

Q2) What do you mean by Bezier Curves? Discuss their applications in computer graphics.

Q3) What is a perspective view? How is it obtained?

Q4) How is a circle plotted with the help of a midpoint circle algorithm?

Q5) What are fractals? How are fractals used in curve generation?

Q6) What is echoing? What is its effect?

Section - C

(2 x 10 = 20)

Q7) Discuss the scan line polygon fill algorithm in detail. What is a sorted edge table?

Q8) Discuss the detailed working of a cathode ray tube.

Q9) Explain the z-buffer algorithm. What are the advantages and disadvantages of using a z buffer algorithm?