Roll No.....

Total No. of Questions : 09] [Total No. of Pages : 02

Paper ID [MC501]

(Please fill this Paper ID in OMR Sheet)

MCA (Sem. - 5th) MAY-2008

COMPUTER GRAPHICS (MCA - 501) (N2)

Time : 03 Hours Maximum Marks : 60

Instruction to Candidates:

1) Attempt any One question from each Sections - **A, B, C, & D.**
2) Section - E is **Compulsory.**

Section - A

(1 × 10 = 10)

Q1) What do you mean by raster scan systems? Explain the working of a color CRT monitors.

Q2) List all the applications of computer graphics.

Section - B

(1 × 10 = 10)

Q3) Describe in detail Breshenham's line drawing algorithm.

Q4) Discuss the various geometrical transformations with suitable examples.

Section - C

(1 × 10 = 10)

Q5) What are windowing and clipping? Explain Sutherland-Hodgman algorithms for clipping a polygon.

Q6) What are projections? Explain different types of projections.

Section - D

(1 × 10 = 10)

Q7) Explain the scan line method for visible surface detection.

Q8) Explain in detail the Phong Shading technique.

Section - E

(10 × 2 = 20)

Q9)

a) What is scan conversion?

b) List the different types of clippings.

c) What do you understand by the term surface rendering?

d) What is Z-Buffer?

e) Why are transformations required?

f) What is translation of an object?

g) What is a perspective view?

h) Define the term object precision. Define the term rotation in three dimensions.

i) Given a line function u = x, first scale it by 100 pts along X - axis, 20-units along Y-axis and rotate through origin by 45 defers in Clock-wise direction.

j) What are the various components of a LCD?