Roll No. .....

Subject Code—6810

M.C.A. (Fourth Year) EXAMINATION

(5 Years Integrated Course)

(Main/Re-appear)

MCA-401

Comp. Graphics and Multimedia

Time : 3 *Hours* *Maximum Marks :* 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. List the operating characteristics for the following Graphic display devices :
   (a) Raster Scan Display
   (b) Storage CRT Display
   (c) Calligraphic Display.

2. (a) What steps are required to plot a line using Bresenham's method ?
   (b) Explain Midpoint algorithm for Ellipse drawing.

-D transformation ? What
)es ? Also explain the
: and suitable example for

herland algorithm for line
d hence find points of
of clipping candidate.
f clipping obtained using
ı and Sutherland-Cohen

ıce problem ? Describe
r line removal.

vare and application area

ıitable diagram parallel
)n and vanishing points.

ırves and Surface with

)r differences between
3-Spline curves ?

2,500

Roll No. .....

Subject Code—6

M.C.A. (Fourth Year) EX

(Main/Re-appear)

(5 Years Integrated C

MCA-402

ARTIFICIAL INTELLI

Time : 3 *Hours* *Maxi*

Note : Attempt any *Five* questi
carry equal marks.

1. Define Artificial Intellige
various applications of Arti
in areas of :
   (i) Theorem Proving
   (ii) Games
   (iii) Vision and Speech Re
   (iv) Robotics
   (v) Expert Systems.

3. What is meant by 2-D transformation ? What are its various types ? Also explain the transformation matrix and suitable example for each of these.

4. Write 2-D Cohen-Sutherland algorithm for line segment clipping and hence find points of intersection in case of clipping candidate. Compare efficiency of clipping obtained using Mid-Point subdivision and Sutherland-Cohen method.

5. What is Hidden surface problem ? Describe scan line algorithm for line removal.

6. Explain hardware, software and application area of multimedia.

7. Explain with help of suitable diagram parallel and perspective projection and vanishing points.

8. (a) Explain Bezier Curves and Surface with equation.

   (b) What are the major differences between Bezier curve and B-Spline curves ?