This question paper contains 2 printed pages.

6127 *Your Roll No* ....

MCA / II Sem.

J

Paper MCA - 203 - Computer Graphics
(Admissions of 2009 and onwards)

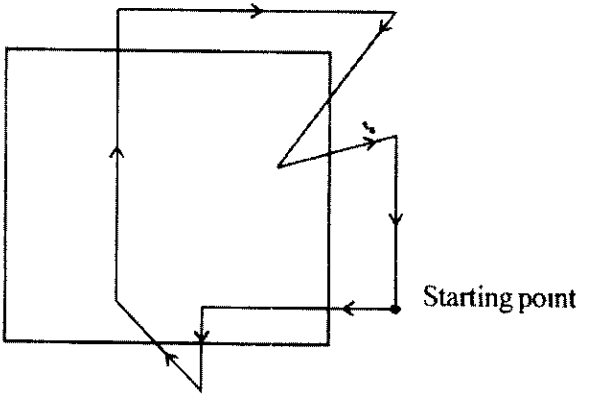
Time 2 hours *Maximum Marks* 50

(Write your Roll No on the top immediately on receipt of this question paper)

Attempt all questions.
Parts of a question must be answered together.

1 Describe NICHOL - LEE - NICHOL algorithm. *06*

2 Write the steps for clipping the following concave polygon using Weiler - Atherton algorithm *06*



3 Write the steps for filling a polygon using scan line seed fill algorithm *05*

P.T.O

4 What do you mean by parametric and geometric connectivity ? Give an example to indicate the difference between them ? *03*

5 Derive the General transformation matrix for oblique parallel projection of (x, y, z) on to a 2 dimensional plane.

Hence give the transformation matrices for cavalier and cabinet projection *06*

6 Enumerate the various spatial - partitioning representations of valid solids Explain only one representation *06*

7 Derive the formula for fractal similarity dimension *03*

8 Write the Z - Buffer algorithm to detect the variable surfaces *05*

9 a) Describe Phong Shading model *04*

b) Draw and explain CIE chromaticity diagram *06*