

C 33175

Name.....

Reg. No.

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION
AUGUST 2007**

Computer Science

CS 201 – ADVANCED COMPUTER GRAPHICS

(2005 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer any **five** questions.
Each question carry equal marks.*

1. Explain the terms blanking, vertical and horizontal retracting, over scanning, flickering.
2. Explain the working of color CRT monitor.
3. Explain the difference between translation, scaling and rotation with figure.
4. Explain the difference between Co-ordinate transformation and Domain transformation.
5. Explain the difference between Sampling and **Aliasing**. How can we convert analog to digital signal?
6. Analyse the effect on a B-spline of having in sequence four collinear control points.
7. How can a scan-line algorithm be extended to deal with polygons with shared edges?

(5 x 8 = 40 marks)

Part B

*Answer any **four** questions.
Each questions carries **10** marks.*

1. Explain how 3-d curves can be described to a Graphics system.
2. Explain some projection methods with **eg**.
3. List some of the promising application of **OpenGL**?
4. Explain the transformation matrix of standard perspective projection.
5. (a) Write a procedure to perform a one-point perspective projection of an object.
(b) Explain the different steps in an animation **sequences**.
6. Explain how virtual-reality systems can be used in design applications.

(4 x 10 = 40 marks)