C 687

Name

Reg. No....................

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2010

Computer Science

CS 201—ADVANCED COMPUTER GRAPHICS

(2005 Admissions)

Maximum : 80 Marks

Time : Three Hours

Part A

Answer any **five** *questions.*
Each question carries 8 *marks.*

1. Write the advantages of raster graphics over vector graphics.

2. Discuss Bresenham's line algorithm. Compare it with DDA line algorithm.

3. Prove that two successive rotations are commutative.

4. Explain basic geometric transformations in 3D.

5. Describe scan line polygon fill algorithm.

6. Discuss how back face removal is done in graphics.

7. Write the applications of open GL.

(5 x 8 = 40 marks)

Part B

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

8. Describe the construction and working of a CRT.

9. Discuss parallel and perspective projection with examples.

10. Explain boundary fill algorithm with an examples.

11. Write polygon clipping algorithm with an example.

12. Discuss depth buffer algorithm for hidden surface identification and removal.

13. Explain how virtual-reality systems can be used to design applications.

(4 x 10 = 40 marks)