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Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Seventh Semester

Branch : Computer Science and Engineering

CS 010 703—COMPUTER GRAPHICS (CS)

(New Scheme—2010 Admission onwards—Regular/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Explain the working of a mouse.
2. What is cascading of 2D transformation ? Explain.
3. What is perspective projection ? Explain with figures.
4. What a polygon surface ? Explain.
5. What is Raycasting ? Explain.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. What are data generation devices ? Explain.
7. Explain spline-curves with diagrams, in 2D.
8. Explain cubic splines with diagrams.
9. Explain object-space method approach in visible surface detection.
10. Explain self-squaring fractals.

(5 × 5 = 25 marks)

Part C

Answer all questions.

Each question carries 12 marks.

11. Explain Raster Scan processors with diagrams.

Or

12. Explain the working principle of Hardcopy output devices.

Turn over

13. Explain Bresenham's line drawing algorithm with an example.

Or

14. Explain Cohen Sutherland line clipping algorithm with an example.

15. Explain 3D transforms and derive their equations in matrix form.

Or

16. What are Octrees? Explain with diagrams.

17. Explain visible surface detection algorithm.

Or

18. Discuss scan-line method with an example.

19. Give a brief description of basic illumination models.

Or

20. Explain the geometric construction of deterministic self similar fractals and statistically self similar fractals.

(5 × 12 = 60 marks)

