

B.TECH. DEGREE EXAMINATION, MAY 2014**Seventh Semester**

Branch : Computer Science and Engineering

CS 010 703 – COMPUTER GRAPHICS (CS)

(2010 Admissions)

[Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

**Part A***Answer all questions.**Each question carries 3 marks.*

1. Define Random Scan displays.
2. State line drawing DDA algorithm.
3. Define Cubic Spline Interpolation.
4. What is meant by 3D Rendering?
5. State various properties of shading model.

(5 × 3 = 15 marks)

Part B*Answer all questions.**Each question carries 5 marks.*

6. Describe briefly about Flat Panel displays.
7. Explain Bresenham's circle drawing algorithm.
8. Illustrate the representation of 3D objects.
9. Explain briefly Parallel and Perspective Projections.
10. Describe the classification of Fractal images.

(5 × 5 = 25 marks)

Turn over

Part C

Answer all questions.

Each question carries 12 marks.

11. Explain various components and functions of Raster Scan display system.

Or

12. Explain any *two* Hard copy devices in detail.

13. Describe various 2D Transformations with examples.

Or

14. Illustrate Sutherland-Hodgman polygon clipping algorithm.

15. Explain B-Spline Curves and Surfaces.

Or

16. Explain various 3D Transformations.

17. Explain Scan Line Coherence algorithm for hidden surface removal.

Or

18. Explain Depth Buffer algorithm for visible surface detection.

19. Describe Gouraud and Phong shading methods.

Or

20. Explain various Fractal Geometry methods.



(5 × 12 = 60 marks)