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B.TECH. DEGREE EXAMINATION, MAY 2015

Seventh Semester

Branch: Computer Science and Engineering CS 010 703—COMPUTER GRAPHICS (CS)

(New Scheme—2010 Admission onwards)

[Improvement/Supplementary]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.
Each question carries 3 marks.

- 1. What are the applications of Computer Graphics?
- 2. Explain the features of Raster Scan displays.
- 3. What is aspect ratio?
- 4. Write a note on 3D viewing.
- 5. What are self squaring fractals?

 $(5 \times 3 = 15 \text{ marks})$

Part B

Answer all questions.
Each question carries 5 marks.

- 6. Explain the generation of image in Random Scan displays.
- 7. Write a note on A-buffer method.
- 8. Explain the concept of clipping and its types.
- 9. Describe B-spline curves.
- 10. What is meant by windowing transformation?

 $(5 \times 5 = 25 \text{ marks})$

Part C

Answer all questions.
Each question carries 12 marks.

11. Explain the various input output devices with a neat sketch.

Or

12. Explain the DDA line drawing algorithm.

Turn over

13. Illustrate the steps of Mid Point Circle Algorithm.

Or

- 14. Demonstrate the different 2D Transformation with examples.
- 15. Explain Bezier Curve representation technique and its properties.

Or

- 16. What are the different 3D display methods?
- 17. Explain the classification of visible surface detection algorithms and brief on Depth-Buffer method.

Or

- 18. Explain Parallel Projection and Perspective projection of 3D objects.
- 19. Describe the polygon rendering methods.

Or

20. Explain how are fractals classified.

 $(5 \times 12 = 60 \text{ marks})$

