Reg. No. | | | | | | | | | | | | |

Question Paper Code : 45892

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

Fifth Semester

Software Engineering

XCS 354/10677 SW 405 – COMPUTER GRAPHICS

(Common to 5 Year M.Sc. Computer Technology and M.Sc. Information Technology)

(Regulation 2003/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define persistence.
2. What is the difference between a pixmap and a bitmap?
3. List down any two character attributes.
4. Define antialiasing.
5. Give an example for composite transformation.
6. Differentiate a window and a viewport.
7. Write down the properties of spline curves.
8. What is a view reference point?
9. List down the drawbacks of depth-buffer method.
10. Define key frame systems.

PART B — (5 × 16 = 80 marks)

11. (a) Differentiate the following

(i) Trackball and spaceball (8)

(ii) Joystick and lightpen (8)

Or

(b) Discuss and differentiate raster scan and random scan systems in detail.

12. (a) With an example, explain the ellipse generation algorithm.

Or

(b) Write short notes on the following

(i) Line attributes (8)

(ii) Line generation algorithm. (8)

13. (a) (i) Discuss in detail the window to viewport transformation. (8)

(ii) Explain line clipping with an example. (8)

Or

(b) (i) Give examples for shear transformation. (8)

(ii) With a suitable example, explain polygon clipping. (8)

14. (a) Write short notes on the following

(i) 3D object representations (8)

(ii) Quadric surfaces. (8)

Or

(b) Differentiate parallel and perspective projections.

15. (a) Discuss the following visible surface detection methods

(i) BSP trees (8)

(ii) Ray casting. (8)

Or

(b) Write detailed notes on computer animation.

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