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

Question Paper Code : 51359

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Seventh Semester

Computer Science and Engineering

CS 2401/CS 71/10144 CS 702 — COMPUTER GRAPHICS

(Common to Information Technology)

(Regulation 2008/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out few attributes of output primitives.

2. What do you mean by clipping?

3. Define splines.

4. What do you mean by viewing?

5. List out basic graphics primitives in open GL.

6. Define Key frame.

7. What is flat shading?

8. How do you add texture to faces?

9. What are peano curves?

10. What is the use of fractals in graphics applications?

PART B — (5 × 16 = 80 marks)

11. (a) Describe the ellipse drawing algorithm.

Or

(b) Explain the Cohen-Sutherland line clipping algorithm.

12. (a) Write short notes on :

(i) Parallel and perspective projections. (8)

(ii) Visualization of data sets for scalar fields. (8)

Or

(b) Explain the following :

(i) Basic 3 D transformations. (8)

(ii) Visible surface identification. (8)

13. (a) Describe briefly about the various color models.(RGB,YIQ,CMY and HSV).

Or

(b) Discuss in detail the process of drawing three-dimensional objects.

14. (a) Discuss about creation, rendering textures and drawing shadows for shaded objects.

Or

(b) Discuss about adding shadow of objects and building a camera in a program.

15. (a) (i) Explain about creation of images by iterated functions. (8)

(ii) Write about Mandelbrot and Julia sets. (8)

Or

(b) Write short notes on :

(i) Ray tracing. (8)

(ii) Boolean operations on objects. (8)

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