

D 70170

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Name

Reg. No.

**SEVENTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME]
DEGREE EXAMINATION, NOVEMBER 2014**

IT 09 701—COMPUTER GRAPHICS

Time : Three Hours

Maximum : 70 Marks



Part A

Short answer questions (one/two sentences).

Answer all questions.

1. What are Raster scan monitors ?
2. Differentiate window and view port ?
3. Give the various Graphic operations.
4. What is B-Spline Curves ?
5. List the advantages of Depth Buffer method.

(5 × 2 = 10 marks)

Part B

Analytical / Problem solving questions.

Answer any four questions.

6. Describe 3-D scaling along with its matrix representation.
7. Write a note on Input / Output devices.
8. Give Ellipse drawing algorithm.
9. List any four properties of Bezier curve.
10. What are the steps involved in 3D transformation ?
11. Brief about Hidden Surface removal.

(4 × 5 = 20 marks)

Part C

Descriptive / Analytical / Problem solving questions.

12. (a) Write down and explain the midpoint circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the centre of the circle.

Or

(b) Explain Rubber band methods in detail.

13. (a) How window-to-view port coordinate transformation happens.

Or

(b) Describe Stack based and queue based seed fill algorithms.

Turn over

14. (a) Explain Bresenham's line drawing algorithm and use it to find all points on a line drawn between (0,0) and (3,8) in a raster scan display.

Or

- (b) With suitable examples, explain all 3D transformations.

15. (a) Discuss Back face removal in detail.

Or

- (b) Illustrate with examples the scaling and rotation around axes.

(4 × 10 = 40 marks)