

G 1107

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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2016**

**Seventh Semester**

Branch : Computer Science and Engineering/Information Technology

COMPUTER GRAPHICS (RT)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 4 marks.*

1. Random scan monitors are termed as vector displays. Why ?
2. Explain the working principle of light pens in brief.
3. Write the five steps in drawing a line using Bresenham's technique.
4. State the purpose of window and view ports in 2D graphics.
5. Mention and explain the properties of Bezier Curves.
6. Write the procedure to perform 3D translation.
7. What is meant by 3D viewing ? Explain.
8. Explain scan line algorithm to remove hidden surfaces.
9. Explain the principle behind animation with a neat sketch.
10. What is self squaring fractals ? Explain.



(10 × 4 = 40 marks)

**Part B**

*Answer all questions.*

*Each full question carries 12 marks.*

11. Explain the operation of cathode ray tube with a neat diagram.  
*Or*
12. Discuss flat panel displays in detail.
13. Explain 2D transformations with examples briefly.  
*Or*
14. Elaborate the steps to perform line clipping with an example.

**Turn over**

15. Explain the different 3D display methods in detail.

*Or*

16. Discuss the different quadric and super quadric surfaces with neat diagrams.

17. Explain 3D clipping of a line segment and a polygon surface in brief.

*Or*

18. Elaborate on depth buffer method used to detect visible surfaces.

19. Discuss the geometric construction of deterministic self similar fractals in brief.

*Or*

20. Write short notes on the following :—

- (a) Key-frame systems.
- (b) Parameterized systems.

(5 × 12 = 60 marks)

