



MS – 316

VI Semester B.A./B.Sc. Examination, May/June 2014
(Semester Scheme)
COMPUTER SCIENCE – VII
Interactive Computer Graphics
(F-70-2013-14 and onwards/R-60-Prior To 2013-14)

Time : 3 Hours

Max. Marks : 70/60

- Instructions :**
- 1) Freshers 2013-14 and onwards students attend Sections A, B, C, D, which carry 70 marks.
 - 2) Repeaters prior to 2013-14 students attend Sections A, B, C only which carry 60 marks.

SECTION – A

Answer **any ten** questions. **Each** question carries **one** mark. **(10×1=10)**

1. Define a pixel.
2. What do you mean by Aspect-Ratio ?
3. What is refresh buffer ?
4. Mention the different line attributes.
5. What are the different fill styles ?
6. Define scaling.
7. Give one difference between window and viewport.
8. What is exterior clipping ?
9. What is translational sweep ?

P.T.O.



10. What are control points ?
11. Explain Global and local control with respect to curves.
12. What are octrees ?

SECTION – B

Answer **any five** questions. **Each** question carries **three** marks.

(5×3=15)

13. Describe raster scan display.
14. Write Bresenham's circle drawing algorithm.
15. Describe the Area-fill attributes.
16. Explain the working of shadow mask CRT.
17. Explain reflection in 2 D.
18. Explain 3-D translation.
19. Mention the 3 categories of Fractals.

SECTION – C

Answer **any five** questions. **Each** question carries **seven** marks.

(5×7=35)

20. With a neat diagram, explain the functioning of CRT.
21. Write DDA line drawing algorithm, and illustrate the algorithm for a line with end points (20, 10) and (30, 18)
22. a) Define transformation.
b) Explain 2-D translation, rotation and scaling.

(1+6)



- 23. Explain the different types of text clipping.
- 24. Explain 3-D Rotation about x, y and z axes and write the corresponding transformation matrices.
- 25. Write a note on polygon tables.
- 26. Explain quadtree encoding.
- 27. Describe the various CSG methods.

SECTION – D

(Only for 2013-14 and onwards)

Answer **any one** question. **Each** question carries **ten** marks. (1×10=10)

- 28. a) Explain plasma panel display.
- b) Write a note on Bezier curves. (5+5)
- 29. What is composite transformation ? Explain pivot-point rotation with an example.