

Q.P. Code – 10655

**Sixth Semester B.A./B.Sc./B.Com. Degree Examination,
September 2020**

(Non-CBCS – New Scheme)

Computer Science

INTERACTIVE COMPUTER GRAPHICS

Time : 3 Hours]

[Max. Marks : 60

Answer ALL Sections.

SECTION – A

Answer **any ten** questions:

(10 × 1 = 10)

1. Define Interactive Computer Graphics.
2. Expand PIXEL.
3. What do you mean by Resolution?
4. What is Composite Transformation?
5. Define blanking.
6. What are the different types of clipping?
7. What is a scaling?
8. Define segment.
9. What do you mean by 3 dimensional transformation?
10. What are the objectives of curves?
11. Why are octrees used?
12. What is translation sweep?

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SECTION – B

Answer any **FIVE** of the following questions.

(5 × 3 = 15)

13. Explain any 3 properties of line.
14. Write the applications of Computer Graphics.
15. How does Random Scan Monitors work?
16. What are the steps involved in the DDA line algorithm?
17. Briefly explain the rubber band method of drawing with suitable illustrations.
18. Explain back face technique of hidden line removal.
19. Generate the expression for window to view port transformation.

SECTION – C

Answer any **FIVE** of the following questions.

(5 × 7 = 35)

20. Explain the technology involved with (a) DVST (b) LCD. (4 + 3)
21. Write an algorithm to implement the Bresenham's circle algorithm with suitable explanation and trace the algorithm to draw a circle with centre (200, 100) and radius 50.
22. Explain the concepts involved with the transformations translation and reflection.
23. Describe the functioning of the Sutherland – Hodgman algorithm to implement polygon clipping.
24. Explain Intensity Cueing and Exploded Cutway views technique in detail.
25. Explain any two three dimensional display technique in detail.
26. (a) Write a note on Bezier Curves.
(b) Explain the use of fractal geometry method. (5 + 2)