19ITU27

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fifth Semester)

Branch – **INFORMATION TECHNOLOGY**

COMPUTER GRAPHICS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 The maximum number of points that can be displayed without overlap in a CRT is referred to as
(i) Picture (ii) Resolution
(iii) Persistence (iv) None of these

2 In Which system the shadow mask method are commonly used
(i) Raster Scan system (ii) Random Scan System
(iii) Monitor Display (iv) Video Display device

3 If the original point P= (5, 7, 3) and the translation T= (2,-1,3), then what will be the value of the final point P1?
(i) 7, 8, 6 (ii) 3, 6, 0
(iii) 7, 8, 0 (iv) 3, 6, 6

4 A closed Polyline is called as _____
(i) Polychain (ii) Polygun
(iii) Polyclosed (iv) Closed Chain

5 Which of the best line algorithm to balance the processing load among the processors
(i) Parellel line algorithm (ii) DDA line algorithm
(iii) Flood Fill algorithm (iv) Line clipping algorithm

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a Write short note on Refresh cathode ray tube.
OR
b Compare Raster scan system and Random scan system.

7 a Illustrate color image converted into grayscale.
OR
b Discuss curve attributes.

8 a Difference between points and pixel.
OR
b List out the properties of circle generating algorithm.

Cont...

9 a How to rotate an object for implementing 3D transformation?

OR

b Apply the X direction and Y direction using scaling factor.

10 a Write down the steps to design in Animation Sequences.

OR

b Discuss about Raster Animation.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a Classify about various interactive input device.

OR

b Summarize the raster scan display processor with diagram.

12 a Illustrate the line attribute of output primitives.

OR

b Discuss about inquiry functions.

13 a Illustrate any two algorithm using line drawing.

OR

b Enumerate shortly on Filled Area primitives.

14 a Derive the concept of matrix representation of an 2D object.

OR

b Examine about Other transformation of an 3D object.

15 a Explain the concept of morphing transformation of object.

OR

b Explain about Elementary 3D transformation.

Z-Z-Z END