

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(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 Heat supplied to the cathode by directing a current through a coil of wire is called
(i) Electron Gun (ii) Electron Beam
(iii) Filament (iv) Cathode and Anode
- 2 Which display device allows us to walk around an object and view it from different sides
(i) Direct view storage tubes (ii) Three Dimensional Device
(iii) Flat panel Display device (iv) Plasma Panel Display device
- 3 Which of the following operation can be applied by 3D object to zoom in or out about any axis from its original position
(i) Translation (ii) Shearing
(iii) Rotation (iv) Scaling
- 4 CAD Stands for
(i) Computer Art Design (ii) Computer Aided Design
(iii) Car Art Design (iv) All of these
- 5 Is a pixel of circle that has center as the origin? Which of the following point are also an circle
(i) (2,-5) (ii) (-5,8)
(iii) (2,-5) & (-5,8) (iv) Both i, ii & iii

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a) Discuss about Video Controller.
OR
b) Write a note on graphics network.
- 7 a) What is an attribute? Write a note on types of attributes.
OR
b) Compare color and grayscale level.
- 8 a) Discuss screen grid co-ordination.
OR
b) List out the properties of Ellipse generating algorithm.
- 9 a) What are the basic transformation in 2D object? Explain.
OR
b) Discuss about composite translation.

Cont...

- 10 a) What is an Kinematics and Dynamics? Explain with example.
OR
b) Define trigonometric function with an example.

SECTION -C (30 Marks)

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

- 11 a) Explain the Representation of Shades of gray and color in raster images.
OR
b) Discuss about cathode ray tube with neat diagram.
- 12 a) Illustrate the bundled attributes of output primitives.
OR
b) Discuss area fill attributes.
- 13 a) Describe Circle generating algorithm.
OR
b) Explain about curve function.
- 14 a) Illustrate Nicholl Lee-Nicholl Line clipping algorithm.
OR
b) Discuss any three useful properties of affine transformation.
- 15 a) Write short note on simulation accelerations.
OR
b) Discuss about windows to viewport co-ordinate transformation.

Z-Z-Z

END