

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
 2. Figures to the right indicate full marks.
 3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

- Q.1 Attempt **any three** of the following: 15
- a. Explain the acceptance and rejection test using bit codes in Cohen-Sutherland line clipping algorithm.
 - b. State and explain input devices in computer graphics.
 - c. Write a short note on Cathode Ray Tube.
 - d. Write a short note on Raster Scan Graphics Display.
 - e. Explain the method of circle drawing using Midpoint Circle Algorithm.
 - f. State and explain DDA line drawing algorithm.
- Q.2 Attempt **any three** of the following: 15
- a. Write a short note on combined transformation.
 - b. Write a short note on one point and two-point perspective transformation.
 - c. Explain process of reflection through an arbitrary line.
 - d. Explain projection with the help of oblique transformation.
 - e. Magnify the triangle with vertices A (0, 0), B (1, 1), C (5, 2) to twice its size while keeping C (5, 2) fixed.
 - f. Explain the concept of 3D translation and 3D rotation transformation.
- Q.3 Attempt **any three** of the following: 15
- a. Write a short note on stages in 3D viewing.
 - b. Write a short note on RGB color model.
 - c. Explain camera model and viewing pyramid with diagram.
 - d. Write a note on radiometry in detail.
 - e. Write a short note on photometry.
 - f. What is Colorimetry? Explain various parameters used for color appearance.
- Q.4 Attempt **any three** of the following: 15
- a. Explain properties of a Bezier curve.
 - b. Write a short note on Painter's algorithm.
 - c. State and explain Z-Buffer algorithm.
 - d. Explain techniques for efficient visible-surface algorithm.
 - e. Explain parametric representation of Parabola and Hyperbola.
 - f. Write a short on Quadric Surfaces
- Q.5 Attempt **any three** of the following: 15
- a. Write a short note on Image Compression Model.
 - b. With the help of example explain median filter in low pass filtering.
 - c. What is Animation? State and explain any five principles of animation.
 - d. Write a short note on histogram equalization.
 - e. Write a short note on deformation.
 - f. Explain the concept of Procedural animation.