

**Tribhuvan University
Institute of Science and Technology**

2070

Bachelor Level/ First Year/ First Semester/ Science

Computer Science and Information Technology (CSc. 254)

(Computer Graphics)

Full Marks: 60

Pass Marks: 24

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. What is a random scan display system? Explain the operation of simple random scan with architecture.
2. Write a procedure to fill the interior of a given ellipse with a specified pattern.
3. Show that two successive reflection about any line passing through the coordinate origins equivalent to a single rotation about the origin.
4. What do you mean by line clipping? Explain the procedure for line clipping.
5. Illustrate the windows to view point transformation with an example.

OR

Write a procedure to implement highlighting as a blinking operation.

6. Why polygon description is consider as standard graphics objects? Explain the importance of polygon table.
7. Model the Bezier curve. Explain the importance of Beizier curve in graphical modeling.

OR

Write a procedure to perform a two – point perspective projection of an object.

8. What is solid modeling? Explain the basic procedures for solid modeling.
9. Explain the area subdivision method for visible surface detection.
10. Explain the basic steps for computer animation.