

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
January 2021

Full Marks: 60
Pass Marks: 30
Time: 1.5 hrs.

BIM / Fifth Semester / IT 221: Computer Graphics

Candidates are required to answer the questions in their own words as far as practicable.

[6 × 10 = 60]

Attempt any SIX Questions:

1. Explain Computer Graphics and write its application.
2. Explain Bresenham's line algorithm for negative slope.
3. Differentiate between Raster scan and Random scan display.
4. Digitize a circle $(x + 15)^2 + (y + 25)^2 = 9$ using mid-point circle equation.
5. What are different 3D object representations? Differentiate between parallel projection and perspective projection.
6. List the differences between z-buffer and depth sorting method (Painter's Algorithm). Explain Painter's algorithm.
7. Differentiate between diffuse reflection and specular reflection of light. Write an algorithm for constant intensity shading.
8. Write short notes on:
 - i. Ambient Light
 - ii. Shear
 - iii. Virtual Reality
 - iv. Java 2D API

