

Mid-West University
Examinations Management Office
Surkhet, Nepal
Final Examinations -2079

Bachelor level/ B.Sc. CSIT /4th Semester

Time: 3hrs

Subject :Computer Graphics(COM 444)

Full Marks: 60

Pass Marks: 30

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Very Short Questions(Attempt all)

[8 x 2 =16]

1. How computer graphics is differed from image processing?
2. Point out the aspect ratio and pixel.
3. Define interactive and non-interactive graphics.
4. Define Refresh CRT.
5. Write the matrix form of reflection of 3D object.
6. Write short notes on different graphics languages.
7. Write a program to display line in c language.
8. Clarify about HSV color model.

Group B

Short Answer Questions(Attempt any Five)

[5x4= 20]

9. Define transformation of 2D object. Given a circle C with radius 5 and center coordinates (1, 4). Apply the translation with distance 2 towards X axis and 3 towards y axis. Obtain the new coordinates of C without changing its radius.
10. Explain different image file format in detail.
11. What is clipping? Explain the Sutherland - Hodgman Polygon Clippingwith suitable example.
12. Discuss about the 2D viewing pipeline.
13. Explain different areas of computer graphics
14. Clarify different techniques to represent the 3D object.

Group A

Long Answer Questions(Attempt any Three)

[3 x 8 =24]

15. Explain CRT monitor with necessary diagram.
16. What is projection? Discuss about the parallel and perspective projection with its type.
17. Explain the Bresenham's Line Drawing Algorithm.
18. Illustrate the derivation of 3D rotation.

THE END