

Mid-West University
Examinations Management Office
Birendranagar, Surkhet
End Semester (Alternative/Physical) Examinations -2078

Bachelor level/ B.Sc CSIT /4th Semester

Full Marks : 60

Time: 3hrs

Pass Marks : 30

Subject : Computer Graphics (COM444)

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

Attempt ALL questions

[6×10=60]

1. a) Differentiate between raster scan and vector scan display. **[5]**
b) Clarify the applications of computer graphics in various sectors. **[5]**
2. a) Describe the 2-D transformation for translation about an arbitrary point. **[5]**
b) Define the terms resolution, pixel, aspect ratio. **[5]**
3. a) Write about the graphical languages. **[5]**
b) Differentiate between interactive and passive graphics. **[5]**

OR

Show the DDA line drawing algorithm with an example. **[10]**

4. Discuss about graphic tablets. Describe projection. Discuss about the parallel and perspective projection. **[10]**
5. a) How much storage is required in a frame buffer when the system has 24 bits and its screen resolution is 1024 x 768. Consider a RGB raster system to be designed using an 8 inch by 10 inch screen with a resolution of 100 pixels per inch in each direction. If we want to store 6 bits per pixel in the frame buffer. How much storage do we need for the frame buffer? **[5]**
b) Write the matrix for 2D and 3D rotation. **[5]**

OR

What are the popular types of graphic file formats? Explain in detail. Differentiate between computer graphics and image processing. **[10]**

6. Illustrate any two frame buffer architectures of Raster Display. **[10]**

THE END