

	MIDTERM EXAMINATION FALL 2007 CS602 - COMPUTER GRAPHICS (Session - 6)	Marks: 35 Time: 120min								
StudentID/LoginID: _____ Student Name: _____ Center Name/Code: _____ Exam Date: Tuesday, November 20, 2007										
<p>1. Attempt all questions. Marks are written adjacent to each question.</p> <p>2. Do not ask any questions about the contents of this examination from anyone.</p> <p style="margin-left: 40px;">a. If you think that there is something wrong with any of the questions, attempt it to the best of your understanding.</p> <p style="margin-left: 40px;">b. If you believe that some essential piece of information is missing, make an appropriate assumption and use it to solve the problem.</p> <p style="margin-left: 40px;">c. Write all steps, missing steps may lead to deduction of marks.</p> <p>**WARNING: Please note that Virtual University takes serious note of unfair means. Anyone found involved in cheating will get an `F` grade in this course.</p>										
Question No: 1 (Marks: 10) For Teacher's use only										
Question	1	2	3	4	5	6	7	8		Total
Suppose an RGB raster system is to be designed using an 10*8 inch screen with a resolution of 100 pixels per inch in each direction. If we want to store 12 bits in per pixel in the frame buffer, how much storage (in bytes) do we need for the frame buffer?										
Question No: 2 (Marks: 10) Which algorithm finds the closest integer coordinates to the actual line. Summarize this algorithm and suggest some improvements.										
Question No: 3 (Marks: 10)										

What could be the ways to implement area filling on raster systems? Summarize scan line polygon filling algorithm in your own words.

Question No: 4 (Marks: 1) - Please choose one

Intensity of the electron beam is controlled by setting _____ levels on the control grid, a metal cylinder that fits over the cathode.

- ▶ Amplitude
- ▶ Current
- ▶ Voltage
- ▶ electron

Question No: 5 (Marks: 1) - Please choose one

True or false. Using Cohen-Sutherland line clipping, it is impossible for a vertex to be labeled 1111.

- ▶ true
- ▶ false

Question No: 6 (Marks: 1) - Please choose one

Shadow mask methods can display a _____ range of colours.

- ▶ Small
- ▶ Wide
- ▶ Random
- ▶ crazy

Question No: 7 (Marks: 1) - Please choose one

Which one of the following step is not involved to write pixel using video BIOS services.

- ▶ Setting desired video mode
- ▶ Using bios service to set color of a screen pixel
- ▶ Calling bios interrupt to execute the process of writing pixel.
- ▶ Using OpenGL service to set color of a screen pixel

Question No: 8 (Marks: 1) - Please choose one

Each number that makes up a matrix is called an _____ of the matrix.

- ▶ Element
- ▶ Variable
- ▶ Value
- ▶ component