

	<b>FINALTERM EXAMINATION</b> SPRING 2006 CS602 - COMPUTER GRAPHICS (Session - 1 )	Marks: 80 Time: 120min
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StudentID/LoginID: \_\_\_\_\_

Student Name: \_\_\_\_\_

Center Name/Code: \_\_\_\_\_

Exam Date: Thursday, August 17, 2006

### Instructions

**Please read the following instructions carefully before attempting any questions:**

1. This examination is closed book, closed notes, closed neighbors.
2. Answer all questions.
3. Do not ask any questions about the contents of this examination from anyone.
4. You are allowed to use any Software for Diagrams and Symbols like MS Word, MathType and Visio etc.

**\*\*WARNING: Please note that Virtual University takes serious notice of using unfair means. Anyone found involved in cheating will get 'F' grade in this course.**

For Teacher's use only											
Question Marks	1	2	3	4	5	6	7	8	9	10	Total
Question Marks	11	12	13	14	15	16	17				
Question Marks											
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Question No: 1 ( Marks: 1 ) - Please choose one

A Bezier curve is a scalar-valued function of one variable.

- ▶ True
- ▶ False

Question No: 2 ( Marks: 1 ) - Please choose one

The transformation process to produce the desired scene for viewing is analogous to taking a photograph with a camera.

- ▶ True
- ▶ False

Question No: 3 ( Marks: 1 ) - Please choose one

There's always a trade-off between the display speed and the quality of the image.

- ▶ True
- ▶ False

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

A space curve is confined to a plane.

- ▶ True
- ▶ False

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

As a software interface for graphics hardware, OpenGL renders multidimensional objects into a frame buffer.

- ▶ True
- ▶ False

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

The index of refraction for most materials is not a function of the wavelength of the light.

- ▶ True

► False

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

Ambient light is the light that comes from one direction.

► True

► False

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

As opposed to parallel projection, perspective projection gives a more realistic view of the objects in the scene.

► True

► False

Question No: 9 ( Marks: 1 ) - Please choose one

Spotlights have three angles associated with them.

► True

► False

Question No: 10 ( Marks: 1 ) - Please choose one

Phong shading is the most realistic shading model.

► True

► False

Question No: 11 ( Marks: 10 )

Each line drawing algorithm has advantages and disadvantages. What you suggest to improve the performance of line drawing algorithm.

Question No: 12 ( Marks: 10 )

Calculate the magnitude and direction of vector V whose x, y, and z components are 10, 6, and 4 respectively.

Question No: 13 ( Marks: 10 )
In solid fill triangle rendering, what are the changes to be made to the DDA algorithm when the vertex coordinates do not fall on integer bound.
Question No: 14 ( Marks: 10 )
During a graphics application development there is a need to use specular light in a scene. What technique you will use; Phong's equation or Blinn's version of Phong's equation and why? Explain.
Question No: 15 ( Marks: 10 )
How parametric functions, that are second degree polynomials, can be used to define plane curves?
Question No: 16 ( Marks: 10 )
While designing an animated scene one of your team member is confused about the timing in animation and seeks your help. Will you help your team member by explaining "What is good timing"?
Question No: 17 ( Marks: 10 )
What are the characteristics of Bezier curve? Does MS Windows Paintbrush facilitate to draw Bezier curve?