NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16, Ahmadu Bello Way, Victoria Island

SCHOOL OF SCIENCE AND TECHNOLOGY
October, 2013 Examination

Course code: CIT 771
Course title: Introduction to Computer Graphics and Animation
Credit unit: 3 credit units
Time: 3 Hours
Instruction: Answer any four (5) questions. Each question carries 14marks.

1.	a.	What is a computer graphics system	(2 marks)
	b.	The applications of computer graphics are many and as such are classified into major areas. List the four major area in which they are classified	(4 marks)
	c.	Illustrate a graphic system using a detailed block diagram	(8 marks)
2.	a.	What is raster graphics	(2 marks)
	b.	Discuss any three properties of light	(8 marks)
	c.	Given a point cloud, polygon, or sampled parametric curve, enumerate four purposes for which transformations can be used	(4 marks)
3.	a.	In computer graphics what is high dynamic range imaging (HDRI)	(2 Marks)
	b.	Discuss/Explain the Cognitive processes hypothesis	(3 marks)
	c.	Discuss any 3 Processes of Traditional Animations	(9 marks)
4.	a.	What is Keyframing	(2 marks)
	b.	List two advantages and one disadvantages of Keyframing	(3 marks)
	c.	Write short notes on the following Additive colour Subtractive colour Alpha Compositing	(9 marks)
5.	a.	In your words briefly define Bi-directional Reflection Distribution Function	(2 marks)
	b.	List and discuss the **classes** and **properties** of Bi-directional Reflection Distribution Function (BRDF)	(12 marks)
6	a.	Define a Graphic Processing Unit (GPU)	(2 marks)
	b.	List the six major elements in the Graphic system	(3 marks)
	c.	Using diagrams only, illustrate Perspective Projection and orthographic projection	(4 marks)
	d.	Write short notes on the following Physiological illusions Cognitive illusions	(3 marks) (2 marks)
7	a.	Using a well labelled block diagram discuss geometric pipeline	(8 marks)
	b.	In order to calculate surface radiance at an intersection point, one of the cached photon maps is used. Highlight the steps involved	(6 marks)