KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS, 2019/2020 ACADEMIC YEAR
FOURTH YEAR, SECOND SEMESTER EXAMINATIONS
FOR THE DEGREE OF BACHELOR OF SCIENCE
(COMPUTER SCIENCE)

Date: 9th April, 2019
Time: 8.30am – 10.30am

KBI 2423 – COMPUTER GRAPHICS AND ANIMATIONS

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

a)	Describe four Applications of Computer Graphics.	(4 Marks)

b)	What is the difference between 2-Dimensional and 3-Dimensional Graphics?	(4 Marks)

c)	Explain in detail the Cohen-Sutherland line clipping algorithm with an example.	(4 Marks)

d)	What is Fractal in computer graphics and using relevant Examples Describe four Applicable Areas of Fractal	(6 Marks)

e)	Using Suitable examples give out the differences between Laser Printers and InkJet Printers	(4 Marks)

f)	Describe any four Computer Graphics Software and their main applicable areas	(4 Marks)

g)	With the help of diagrams, describe any three text clipping methods	(4 Marks)

QUESTION TWO (20 MARKS)

a)	What is monitor Resolution?	(3 Marks)

b)	You have been appointed as Computer Graphics Consultant to explain different monitor resolutions , Explain the following Resolutions;
   i)	High Definition(HD)	(4 Marks)
   ii)	4 K Display	(4 Marks)
   iii)	8 K Display	(4 Marks)

c)	Computer Graphics technologies come with different color modes, describe RGB Color Mode	(5 Marks)

QUESTION THREE (20 MARKS)

a)   Discuss any five parameters used to measure the performance of a monitor.

(10 Marks)

b)   Outline four methods of acquiring images into a computer system.

(4 Marks)

c)   Differentiate between vector graphics and bitmap image.

(6 Marks)

QUESTION FOUR (20 MARKS)

a)   Bezier Curves are commonly used Curves in Computer Graphics , Using relevant Examples Describe Properties of Bezier Curves   (10 Marks)

b)   Using relevant examples and diagrams, discuss the differences and similarities between Raster Based Graphics and Vector Based Graphics   (10 Marks)

QUESTION FIVE (20 MARKS)

a)   Computer Animation is crucial area in generating graphics, using relevant examples discuss various techniques and technologies used in computer animations.   (10 Marks)

b)   Discuss any five Computer Graphics Software , highlighting advantages, disadvantages and it well suited areas of graphics of each software   (10 Marks)