CLASS : YR 3

UGANDA MARTYRS UNIVERSITY

By Rahman Sanya

UNIVERSITY EXAMINATIONS
FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION SYSTEMS
END OF SEMESTER FINAL ASSESMENT
SEMESTER 1, 2022/2023

COURSE	:	**BACHELOR OF SCIENCE IN COMPUTER SCIENCE - YEAR 3**
PAPER	:	**FORENSIC SCIENCE**
CODE	:	**CSC 3107**
SEMESTER	:	**ONE**
DATE	:	**14TH DECEMBER 2022**
TIME	:	**9:30 – 12: 30 PM**
DURATION	:	**3 HOURS**

Instructions

1. *This paper consists of two sections, Section A and Section B*
2. *Answer all questions in Section A*
3. *Answer any one question from Section B*
4. *Write your answers in the answer booklet provided*

SECTION A (40 MARKS)

QUESTION 1
  a) What is cybercrime? [2 MARKS]
  b) Explain how computers may be used to commit crime. [4 MARKS]
  c) Explain how *user created data* and *machine created data* may be used as electronic evidence in a forensic investigation. [4 MARKS]

QUESTION 2: Describe a typical digital forensics process model. [10 MARKS]

QUESTION 3
  a) What is a virtual digital forensics laboratory? [2 MARKS]
  b) Explain the components of a quality assurance program for digital forensic. [4 MARKS]
  c) Why is accreditation and certification important requirement for a digital forensic laboratory? [4 MARKS]

QUESTION 4
  a) Identify the components of a digital forensics report. [5 MARKS]
  b) Identify any five digital forensic tools and explain what each may be used for. [5 MARKS]

SECTION B (10 MARKS)

QUESTION 5
  a) Explain two common types of digital forensic image file formats. [2 MARKS]
  b) Describe one technique you would use to validate a forensic image file. [2 MARKS]
  c) Explain the following non-volatile memory acquisition methods: physical acquisition, logical acquisition, and sparse acquisition. [6 MARKS]

QUESTION 6
  a) Why is it important to perform analysis on a forensic image of a file instead of doing so on the original suspect device or data? [2 MARKS]
  b) Explain any three types of forensic analysis. [6 MARKS]
  c) What is email email forensics and web browser forensics? [2 MARKS]

THE END!