

Kasarani Campus Off Thika Road Tel. 2042692 / 3 P. O. Box 49274, 00100 NAIROBI Westlands Campus Pamstech House Woodvale Grove Tel. 4442212 Fax: 4444175

KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR END SEMESTER EXAMINATION OR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

FOR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY (SPECIALS)

<u>DCU 1007 – ICT AND ETH</u>ICS

Date: 20TH APRIL, 2023 Time: 4:00PM- 6:00PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS QUESTION ONE (30 MARKS)

a) Define the following terms used in computer systems

(6 Marks)

- i) Computer System
- ii) Application software
- iii) Operation system
- b) Explain Four major characteristics of a computer system

(8 Marks)

c) Differentiate between the following terms

(4 Marks)

- i) Registers and System software
- ii) Analogue computer and Digital computer
- d) Discuss the causes of failure of distributed operating systems

(5 Marks)

e) Operating system is a part critical component of the computer system. Discuss the functions it serves in in the computer (7 Marks)

QUESTION TWO (20 MARKS)

a) ICT is an integral part in today's business operations and transactions. Describe the major effects that ICT has played in the different sectors of the economy with relevant examples

(10 Marks)

b) Differentiate single user and multi user

(4 Marks)

c) Outline the basic issues that differentiate ethics and law

(6 Marks)

QUESTION THREE (20 MARKS)

a) Write short notes about the following:

(9 Marks)

- i) Bath operating systems
- ii) Distributed operating systems
- iii) Real time operating Systems
- b) Explain the following model-driven methods

(6 Marks)

- i) Cathode ray tube monitor
- ii) Flat panel display monitor
- c) Define security threats and expound on theft as a major security threat

(5 Marks)

QUESTION FOUR (20 MARKS)

- a) Briefly explain the printer as an output device giving advantage and one disadvantage (6 Marks)
- b) Differentiate between supercomputers and mainframe computers (4 Marks)
- c) Various modes of data transmission are used in networks. Discuss the three major modes(6 marks)
- d) Networks are basically critical and play vital roles in today's business operations. Expound on some of the reasons why they are needed (4 Marks)

QUESTION FIVE (20 MARKS)

- a) Computers have brought more good than harm. Support this statement with relevant examples (8 Marks)
- b) Networking involves communication among computer devices. What networking topologies help in facilitating communication? (6 Marks)
- c) Distinguish the following:

(6 Marks)

- i) Data backup and Cryptography
- ii) Primary and Secondary storage devices