(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS 2021/2022 ACADEMIC YEAR

FIRST YEAR SPECIAL/ SUPPLEMENTARY EXAMINATIONS

FOR THE AWARD OF DIPLOMA IN ENGINEERING

COURSE CODE: DCE 061/DEE 053

COURSE TITLE: FUNDAMENTALS TO COMPUTING AND APPLICATIONS

DATE: Tuesday 26th July, 2022   **TIME:** 2.00 p.m – 4.00 p.m

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION **ONE** AND ANY OTHER **TWO** QUESTIONS.
QUESTION ONE CARRIES 30 MARKS AND ALL OTHERS 20 MARKS EACH.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating
This Paper Consists of 3 Printed Pages. Please Turn Over. ▶

Question One   [30 marks]

a. Define the following terms as applied to computers;
    i.   Algorithm   [1 mark]
    ii. Booting   [1 mark]
    iii. Data   [1 mark]
    iv. Package   [1 mark]
    v.   Cell   [1 mark]

b. Give an example of numeric formula, logical formula and text formula.
                                                                        [3 marks]
c. Giving examples explain how hybrid computers differ from analog and digital
    computers.   [4 marks]

d. Explain what is meant by device driver and give its role in computer.
                                                                        [4 marks]
e. List and briefly explain any *five* elements that can be included in PowerPoint slides.
                                                                        [5 marks]
f. Explain any *five* historic calculating devices, in the order, in which they came into
    existence.   [5 marks]

g. Explain in detail the role of Control Unit in a computer.   [6 marks]

Question Two   [20 marks]

a. Explain what is meant by parent directory. Which symbol is used for denoting parent
    directory in MSDOS   [6 marks]

b. Computer memory may be classified by types (*ROM, RAM* and *Cache*). Clearly explain
    their differences.   [6 marks]

c. Differentiate with examples between hard page breaks and soft page breaks.
                                                                        [4 marks]

d. Define the term *presentation* hence differentiate between manual presentation and
    PowerPoint presentation.   [4 marks]

Question Three   [20 marks]

a. Describe object linking and object embedding features of Windows 8 operating system.
                                                                        [6 marks]
b. Name any *four* types of slide views available in MS Powerpoint for presentation.
                                                                        [4 marks]

c. Justify which desktop publishing software would be most suitable for handling the
    following tasks;
    i.   Illustration work   [2 marks]
    ii. Professional page layout   [2 marks]
    iii. Website building   [2 marks]

d. Using examples, explain the functions of the following MS EXCEL functions; RIGHT,
    LOWER, UPPER, TRIM and REPT.   [4 marks]

Question Four   [20 marks]

a. Name any three activities, which can be easily performed, using mail merge facility of MS-Word. [3 marks]

b. Operating systems can be broadly classified into three categories. Name and explain each category. [3 marks]

c. Highlight any *four* characteristics of processors. [4 marks]

d. Give the classification with examples for each case, of the keys on a computer keyboard. [4 marks]

e. Name any *six* GUI components that are generally provided in any GUI based operating system. [6 marks]

Question Five **[20 marks]**

a. Explain, giving examples, the following types of printers,
   i. Laser printer [1 mark]
   ii. Line printer [1 mark]
   iii. Drum printer [1 mark]
   iv. Chain printer [1 mark]
   v. Character printer [1 mark]

b. Name at least *four* types of management functions that operating system performs. [4 marks]

c. Name any *three* operating systems that are suitable for networking. [3 marks]

d. Explain what you understand by the terms reliability and adaptability of operating system. [2 marks]

e. Name and explain *six* types of student application software. [6 marks]