MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

CRAFT CERTIFICATE IN MECHANICAL ENGINEERING (PRODUCTION OPTION)

CRAFT CERTIFICATE IN ELECTRICAL AND ELECTRONICS TECHNOLOGY (POWER OPTION)

CRAFT CERTIFICATE IN ELECTRICAL AND ELECTRONIC TECHNOLOGY (TELECOMMUNICATION OPTION)

CRAFT CERTIFICATE IN EARLY CHILDHOOD EDUCATION

CRAFT CERTIFICATE IN AUTOMOTIVE ENGINEERING

CRAFT CERTIFICATE IN BUILDING TECHNOLOGY

CRAFT CERTIFICATE IN FOOD AND BEVERAGE

CRAFT CERTIFICATE IN CIVIL ENGINEERING

CRAFT CERTIFICATE IN GARMENT MAKING

INTRODUCTION TO INFORMATION COMMUNICATION TECHNOLOGY

DATE: 23/4/2019   **TIME: 2.30-5.30 PM**

INSTRUCTIONS

*This paper consists of **TWO** sections; **A** and **B**.*
*Answer **SIX** questions from section **A**, and **FOUR** questions from section **B** in the answer booklet provided.*
Maximum marks for each part of a question are indicated.
All questions carry equal marks.

SECTION A: (60 MARKS)

*Answer **SIX** questions from this section.*

QUESTION ONE (10 MARKS)

a)   Arrange the following types of computers according to their physical sizes starting with the smallest

Main frame, supercomputer, minicomputer, laptop, desktop computer, palmtop, work station, tower computer.   (4 marks)

b)   i   Explain the term computer.

ii   Distinguish between computer hardware and computer software.   (6 marks)

QUESTION TWO (10 MARKS)

a)   With an illustration, describe how control unit performs its operations.   (4 marks)

b)   Outline **three** safety precautions that may be taken to minimize damage to a Digital Versatile Disk (DVD).   (3 marks)

c)   Write the Ms-Dos command that would achieve each of the following

(i)   Listing the contents of a folder

(ii)   Changing from a folder to a subfolder

(iii)   Deleting a folder and all its subfolders   (3 marks)

QUESTION THREE (10 MARKS)

a)   Distinguish between authentication and authorization as used in data security.   (4 marks)

b)   Outline **three** reasons that make cyber crime, perpetrators tend to go without conviction.

(3 marks)

c)   Classify the following word processing activity as either editing or formatting:

i.   Moving text

ii.   Changing font style

iii.   Deleting text

iv.   Checking spelling

v.   Increase indent

vi.   Change case   (3 marks)

QUESTION FOUR (10 MARKS)

a)   i   With the aid of a sketch, outline each of the following terms as used in spreadsheets.

(I)   Column

(II)   Row

(III)   Cell

ii   Describe **two** cell data types in a spreadsheet..   (6 marks)

b)   List **four** tool bars found on a word processing window.   (2 marks)

c)   State **two** risky assignments in which computers may be deployed in the place of humans.

(2 marks)

QUESTION FIVE (10 MARKS)

a)   Outline the **steps**, followed when creating a relationship between tables in an existing databases.   (5 marks)

b)   Table 1 shows the marks scored by students in various subjects and stored in a word processing table. Use it to answer the questions that follow:

Table 1

	Name	Maths	Cartography	Computer Studies	Total
1.	Alex M.	20	40	50	
2.	Joan K.	30	50	90	
3.	Susan K.	70	40	20	
4.	Moses	50	49	70	
	Subject Mean				

Write the formula to calculate:

i.   The total marks for the student named Alex;

ii.   The mean score for Maths.   (2 marks)

c)   Outline **two** options used to include a table in a word processing document.   (1 mark)

d)   Explain the significance of a red wavy underline in a word processing document.

(2 marks)

QUESTION SIX (10 MARKS)

a)   i   With the aid of a diagram, explain the mesh computer network topology

ii   Outline **three** disadvantages of the mesh computer network topology   (6 marks)

b)   Explain the function of two logical operators in a database.   (4 marks)

QUESTION SEVEN (10 MARKS)

a)   Explain each of the following terms as used in desktop publishing:

      (i)   Importing text

      (ii)   Linking objects   (4 marks)

b)   Explain **three** factors that should be considered when designing slides in a presentation package.   (6 marks)

SECTION B (40 MARKS)

*Answer any **TWO** questions from this section. All questions carry equal marks*

QUESTION EIGHT (20 MARKS)

a)   Define the following terms as used in data security and control:

      i.   Firewall

      ii.   Encryption

      iii.   Impersonation

      iv.   Audit trail

      v.   Eavesdropping

      vi.   Privacy

      vii.   Confidentiality   (14 marks)

b)   Explain three Methods hackers use to gain access to computers   (6 marks)

QUESTION NINE (20 MARKS)

a)   i   Distinguish between intranent and extranet   (4 marks)

      ii   Describe the functions of the Internet.   (6 marks)

b)   In a step-by-step format, illustrate how you can:

      i.   Establish the time you have been online in a session.

      ii.   Log out of the Internet.   (10 marks)

QUESTION TEN (20 MARKS)

a)   With an aid of a diagram, describe the functional components of a computer system.

                               (10 marks)

b)   Sam intends to integrate ICT in their organization. Explain five challenges the management is likely to experience as a result of this.   (10 marks)

QUESTION ELEVEN (20 MARKS)

a)   Discuss how the computers and/or ICT have impacted the society on the following different levels:

     i.   Personal

     ii.   Community

     iii.   National

     iv.   Global

     v.   Future   (10 marks)

b)   Compare and contrast the characteristics of computers to those of humans.   (10 marks)

QUESTION TWELVE (20 MARKS)

a)   Discuss how computer viruses are spread and the impact they have in the computer industry today.   (10 marks)

b)   What is a desktop? Explain any four things that appear on the desktop.   (10 marks)