



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

CERTIFICATE IN HUMAN RESOURCE MANAGEMENT

CERTIFICATE IN BUSINESS MANAGEMENT

CERTIFICATE IN PROCUREMENT

INFORMATION COMMUNICATION TECHNOLOGY

DATE: 23/4/2019

TIME: 2.30-5.30 PM

INSTRUCTIONS

Answer question one and any other One questions in section A and all the questions in section B

SECTION A

1.
 - a) Explain the differences between the following terms as used in ICT
 - i. Workbook and Worksheet
 - ii. Window and Windows
 - iii. Cell and Range of cells
 - iv. Network and Internet (8 marks)
 - b) Explain any four uses of internet (4 marks)
 - c) Explain the different types of operating systems (6 marks)
 - d) John went through an excel document and met the term *cell reference*. As an ICT expert, explain to him the different types of cell references (6 marks)
 - e) Explain the three main types of computer networks (6 marks)
- 2 (a) Explain any **five** social implications of the introduction of computers to the modern Society (10 marks)

- (b) Explain any **five** disadvantages of computers (5 marks)
- (c) Explain any five factors to consider when buying computer software (5 marks)
- 3 (a) List any **three** methods of inserting a table in *MS word* (6 marks)
- (b) Explain the different alignment found in MS Word (4 marks)
- (c) Distinguish between *sabotage* and *hacking* as used in data security (2 marks)
- (d) Explain the meaning of the following terms as used in *MS word*
- i. Mail merge
 - ii. Drop cap
 - iii. footer
 - iv. pageboarder (4 marks)
- (e) List any *four* features which can be applied to text in a MS word document. (4 marks)

SECTION B

INSTRUCTIONS

- Create a folder on the desktop and call it KNEC EXAM
- Perform all the tasks and save your work inside the KNEC EXAM folder
- In all the two tasks, insert your name and admission number as header

Task 1

Open an MS Word document and create the following document as it is. (10 marks)

Programming Algorithm

So, what is a programming algorithm? You can think of a **programming algorithm** as a recipe that describes the exact steps needed for the computer to solve a problem or reach a goal. We've all seen food recipes - they list the ingredients



needed and a set of steps for how to make the described meal. Well, an algorithm is just like that. In computer lingo, the word for a recipe is a **procedure**, and the ingredients are called **inputs**. Your computer looks at your procedure, follows it to the



letter, and you get to see the results, which are called **outputs**. A programming algorithm describes how to do something, and your computer will do it exactly that way every time. Well, it will once you convert your algorithm into a language it understands!

However, it's important to note that a programming algorithm is not computer code. It's written in simple English (or whatever the programmer speaks). It doesn't beat around the bush--it has a start, a middle, and an end. In fact, you will probably label the first step 'start' and the last step 'end.' It includes only what you need to carry out the task. It does not include anything unclear, often called ambiguous in computer lingo, that someone reading it might wonder about.

It always leads to a solution and tries to be the most efficient solution we can think up. It's often a good idea to number the steps, but you don't have to. Instead of numbered steps, some folks use indentation and write in **pseudocode**, which is a semi-

programming language used to describe the steps in an algorithm. But, we won't use that here since simplicity is the main thing. Other folks just use a diagram called a flowchart, which we will discuss soon.

Task 2

Open an MS Excel document and create the document below then answer the questions that follow.

	I5							
	A	B	C	D	E	F	G	H
1								
2		Sales for Stationery Shop						
3								
4		Item	Quantity	Price	Sales	VAT	Profit	
5		Pens	25	25				
6		Chalk	250	40				
7		Dusters	100	55				
8		Printing ink	18	6000				
9		Printing paper	20	350				
10		Foolscaps	60	250				
11		Total						
12								
13								
14		VAT Rate	16%					
15								
16								

Using cell addresses only and not the cell contents, write formulas which if entered in relevant cells, would be able to perform the following calculations:

- If entered in cell E5 and copied down, would calculate Sales given that

$$\text{Sales} = \text{Quantity} \times \text{Price}$$
- If entered in cell F5 and copied down, would calculate VAT given that

$$\text{VAT} = \text{Sales} \times \text{VAT Rate}$$
 (use cell address of VAT Rate)
- If entered in cell G5 and copied down, would calculate Profit given that

$$\text{Profit} = \text{Sales} - \text{VAT}$$
- If entered in cell D11 and copied to the right, would calculate totals for Sales, VAT and profit.

(10 marks)