



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE

DIPLOMA OF ELECTRICAL AND ELECTRONICS ENGINEERING

DIPLOMA IN MECHANICAL ENGINEERING

DIPLOMA IN CIVIL ENGINEERING

SCU101: INTRODUCTION TO COMPUTERS

DATE: 22/7/2019

TIME: 2.00-4.00 PM

Instructions:

Answer question ONE and any other TWO questions

Don't write on this question paper

QUESTION ONE

- a) Define the following terms in respect to Computers.
 - i. Software
 - ii. Peripherals. (4 marks)
- b) Explain how the following concepts are applied in the ICT industry.
 - i. Computer Aided Learning
 - ii. Videoconferencing
 - iii. Telecommuting. (6 marks)
- c) Describe three mouse techniques and indicate how they interact with icons in a Graphical User Interface (GUI) environment. (6 marks)
- d) Explain four factors that one would consider when selecting software. (8 marks)
- e) Using an example in each case list any three statistical functions used in Ms-Excel. (6 marks)

QUESTION TWO

- a) Juma who is a student in MUC intends to buy a laptop and has approached you for advice. Explain to him **three** factors that will determine the cost of the laptop. (6 marks)
- b) Describe **three** variations of compact disks. (6 marks)
- c) You have been requested to advise your manager on different computer software. Briefly explain the two classes of software. (4 marks)
- d) Lynn has engaged the services of a software house to develop software that will to manage her business. Explain **two** benefits that she will derive from this move (4 marks)

QUESTION THREE

- a) Differentiate between softcopy and hardcopy output. (4 marks)
- b) Using an example in each case describe the following data types in respect to Ms- Excel.
 - i. Function
 - ii. Value
 - iii. Label (6 marks)
- c) Use an example to differentiate between absolute and relative referencing in Ms-Excel. (4 marks)
- d) Illustrate the flow of data and control in a computer. (6 marks)

QUESTION FOUR

- a) Describe the term *computer/information security*. (2 marks)
- b) Describe the following basic principles of data/information systems in relation to computer security;
 - i. Confidentiality
 - ii. Availability
 - iii. Integrity
 - iv. Authenticity (8 marks)
- c) Describe the counter measures to the following computer crimes
 - i. software piracy;
 - ii. Unauthorized access. (4 marks)
- d) Differentiate the following pair of terms in relation to computer security

- i. Risk and Vulnerability
- ii. Threat and Attack
- iii. Passive and Active attack

(6 marks)

QUESTION FIVE

Use the spreadsheet below to answer the questions that follow

	A	B	C	D	E	F	G	H	I	J
1	ITEMS	QUANTIT Y	BUYIN G PRICE PER ITEM	COS T	SELLIN G PRICE PER ITEM	QUANTITIE S SOLD	SALE S	NEW SELLIN G PRICE	STOCK BALANC E	REMARK S
2	SPRING FILES	445	100		120	138				
3	NOTEBOOKS	330	48		62	121				
4	CLIPBOARDS	198	70		85	120				
5	PHOTOCOPY PAPERS	375	550		580	166				
6	EXERCISE BOOKS	466	28		40	140				
7	GEOMETRICA L SETS	126	185		225	100				
8	TOTALS									
9	PRICE INCREMENT	.06								

Using cell addresses only, calculate;

- a) The cost for each item (2 marks)
- b) Sales for the quantities sold (2 marks)
- c) Total cost and sales for all items (4 marks)
- d) The new selling prices for each item using the price increment in cell B9 (4 marks)
- e) The stock balance for each item (2 marks)
- f) Use the IF function to determine the Remark for each item using the following criteria. If the stock balance falls below 150, the comment should be 'RE-ORDER', if the stock balance exceeds 400 the comment should be 'EXCESS', otherwise the comment should be 'OK'. (6 marks)