



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

DIPLOMA IN ELECTRICAL ENGINEERING

DIPLOMA IN MECHANICAL ENGINEERING

DIPLOMA IN BUILDING TECHNOLOGY

SCU101 : INTRODUCTION TO COMPUTERS

DATE: 23/9/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS

Answer question ONE and any other TWO questions

Don't write on this question paper

QUESTION ONE (COMPULSORY) (30 MARKS)

- 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 (20 MARKS)

- 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 (20 MARKS)

- a) Describe the term *computer/information security*. (2 marks)
- b) Describe the following basic principles of data/information systems in relation to computer security;
 - a. Confidentiality
 - b. Availability
 - c. Integrity
 - d. Authenticity
 (8 marks)
- c) Describe the counter measures to the following computer crimes
 - a. software piracy;
 - b. Unauthorized access.
 (4 marks)
- d) Differentiate the following pair of terms in relation to computer security
 - a. Risk and Vulnerability
 - b. Threat and Attack
 - c. Passive and Active attack
 (6 marks)

QUESTION FIVE (20 MARKS)

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	GEOMETRICAL SETS	126	185		225	100				
8	TOTALS									
9	PRICE INCREMENT	.06								

Using cell addresses only, calculate;

- i) The cost for each item (2 marks)
- ii) Sales for the quantities sold (2 marks)
- iii) Total cost and sales for all items (4 marks)
- iv) The new selling prices for each item using the price increment in cell B9 (4 marks)
- v) The stock balance for each item (2 marks)
- vi) 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)