



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

**(A Constituent College of JKUAT)**

(A Centre of Excellence)

# **Faculty of Engineering & Technology**

**DEPARTMENT OF PURE & APPLIED SCIENCES  
DEPARTMENT OF MEDIA & GRAPHIC DESIGN**

**UNIVERSITY EXAMINATION FOR:  
BACHELOR OF TECHNOLOGY IN APPLIED CHEMISTRY/BACHELOR OF  
TECHNOLOGY IN MICROBIOLOGY & BIOTECHNOLOGY/BACHELOR OF  
JOURNALISM & MASS COMMUNICATION  
(BTAC/BTMB/BJMC)**

**ECS 4101/ICS 2110: INFORMATION TECHNOLOGY I  
EIT 4130: FUNDAMENTALS OF COMPUTING**

**END OF SEMESTER EXAMINATION  
SERIES: DECEMBER 2012  
TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

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**Question One (Compulsory)**

- a) Describe the different types of computers. **(6 marks)**
- b) For each category below, explain and provide **TWO** examples of each:
- (i) Memory
  - (ii) Search Engine
  - (iii) Microcomputer

(iv) Embedded Systems (8 marks)

c) Explain the drawbacks of computers. (6 marks)

### Question Two

a) Differentiate between the following:  
(i) Peer-to-peer and Client/Server  
(ii) Intranet and Extranet  
(iii) Web Browser and Web Server  
(iv) Virus and Worm (8 marks)

b) Explain **TWO** ways that you can safeguard your computer against virus attacks. (2 marks)

c) Explain the requirements of connecting to the internet. (8 marks)

d) Explain the different parts of the following web address:  
<http://www.microsoft.com> (2 marks)

### Question Three

a) Define operating system and utility program. (4 marks)

b) Describe the differences between operating system and utility program giving an example of each. (6 marks)

c) Describe the **FOUR** operations that a computer performs in sequence. (4 marks)

d) Explain the drawbacks of using the internet. (6 marks)

### Question Four

a) Define the term CPU and explain the major parts of a CPU. (6 marks)

b) Explain the following features used in word processing:  
(i) Formatting  
(ii) Printing  
(iii) Mail-merge  
(iv) Editing (4 marks)

c) (i) Define the term Email. (2 marks)

(ii) Identify **TWO** features of Emails. (2 marks)

(iii) Describe using an example the **THREE** parts of an Email Address (6 marks)

### Question Five

a) Explain the following as used in spreadsheets:  
(i) Function  
(ii) Active cell  
(iii) Workbook (6 marks)

b) The table below represents the monthly income and expenditure of Mr. X

	A	B	C	D	E	F
1		January	February	March	April	May
2	Income	4200	3400	4100	3300	3200
3						
4	Rent	1200	1200	1200	1200	1200
5	Groceries	600	620	540	540	620
6	Car Expense	320	320	350	360	240
7	Utilities	900	910	890	880	870
8	Entertainment	710	790	200	200	900
9						
10	Total Expenses					
11	Net Income					
12	Budget					

c) Write a formula using cell names to compute the following expressions:

- (i) Find out the total expenses for each month. **(5 marks)**
- (ii) Find out the Net Income for each month based on the following formula;  
Net Income = Income – Total Expenses **(5 marks)**
- (iii) Using IF function, find out the Budget given the following: “If Net Income is more than 0 then Budget is Yes, otherwise Budget is No” **(5 marks)**