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INFORMATION COMMUNICATION
TECHNOLOGY (THEORY)

Paper 1

July 2023

Time: 2 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN SALES AND MARKETING
DIPLOMA IN SUPPLY CHAIN MANAGEMENT
DIPLOMA IN BUSINESS MANAGEMENT
DIPLOMA IN COOPERATIVE MANAGEMENT
DIPLOMA IN HUMAN RESOURCE MANAGEMENT
DIPLOMA IN ROAD TRANSPORT MANAGEMENT
DIPLOMA IN MARITIME TRANSPORT OPERATIONS
DIPLOMA IN TOUR GUIDING OPERATIONS
DIPLOMA IN TOUR GUIDING AND TRAVEL OPERATIONS
DIPLOMA IN PROJECT MANAGEMENT
DIPLOMA IN CLERICAL OPERATIONS
DIPLOMA IN INVESTMENT MANAGEMENT
DIPLOMA IN MARITIME TRANSPORT LOGISTICS
DIPLOMA IN HUMAN RESOURCE MANAGEMENT
DIPLOMA IN PRINT JOURNALISM
DIPLOMA IN BROADCAST JOURNALISM
DIPLOMA IN DIGITAL JOURNALISM

MODULE I

INFORMATION COMMUNICATION TECHNOLOGY (THEORY)

Paper 1

2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SIX questions.

Answer any FOUR of the SIX questions in the answer booklet provided.

Candidates should answer the questions in English.

This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. (a) Outline **three** new features that were introduced in the fourth-generation computers. (3 marks)
- (b) Explain each of the following types of threats to computer data:
 (i) viruses;
 (ii) phishing. (4 marks)
- (c) State **two** differences between *supercomputers* and *mainframe computers*. (4 marks)
- (d) With the aid of a diagram, describe a *mesh computer network topology*. (4 marks)
2. (a) State **four** objects that a user is likely to interact with when using a database. (2 marks)
- (b) Outline **four** methods of organising files in a storage media based on data accessibility. (4 marks)
- (c) A learning institution installed software in their computers. Explain **two** categories of system software that would have been installed. (4 marks)
- (d) With the aid of an example in each case, describe the following categories of computer storage:
 (i) secondary;
 (ii) primary. (5 marks)
3. (a) Outline **four** advantages of *off-the-shelf* application software. (4 marks)
- (b) Explain the function of each of the following features in a spreadsheet program:
 (i) AutoSum;
 (ii) Autofill. (4 marks)
- (c) Organizations have opted to use e-mails for their communications. Outline **four** advantages of this method to the organization. (4 marks)
- (d) Ken created slides in a presentation program. Outline **three** examples of slide layouts he could have used in the presentation. (3 marks)
4. (a) Outline **three** examples of information displayed on the status bar in a word processing program. (3 marks)
- (b) Explain each of the following features in a presentation program:
 (i) theme;
 (ii) animations. (4 marks)
- (c) Liza used the *insert key* on the keyboard while editing a document created in a word processor. Explain the **two** ways she could have used the insert key. (4 marks)
- (d) Explain **two** reasons that would necessitate an organization to connect to an intranet. (4 marks)

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5. (a) Outline **three** advantages of using templates in a presentation program. (3 marks)
- (b) Explain each of the following terms as used in the internet:
- (i) spam;
- (ii) search engine. (4 marks)
- (c) Samuel intends to acquire a word processing program for her laptop. Outline **four** factors to consider during the acquisition. (4 marks)
- (d) Distinguish between *active* and *passive* computer network attacks. (4 marks)
6. (a) Outline **three** security measures that an organization may put in place to secure their networked computers. (3 marks)
- (b) Describe each of the following stages in the data processing cycle:
- (i) data preparation;
- (ii) output stage. (4 marks)
- (c) Bhenita Enterprise intends to use a spreadsheet program to compute new prices for its products as shown in Figure 1. Use it to answer the questions that follow.

	A	B	C
1	BHENITA ENTERPRISE NEW PRICE LIST		
2	PRODUCT	OLD PRICE	NEW PRICE
3	Margarine	550	632.50
4	Butter	600	690.00
5	Ghee	655	753.25
6			
7	Percentage Increase	15%	

- (i) Using cell addresses only, write a formula that was used in cell C3 to compute the new price for margarine and later copied for all products.
(*New price = Old price × Percentage Increase + old price.*) (2 marks)
- (ii) Identify **four** formatting features that have been applied in the worksheet extract. (2 marks)
- (d) Employees in an organisation are required to use an e-mail application for communication. Outline **four** e-mail operations that are likely to be carried out while using the application. (4 marks)

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