

2902/103A, 2903/103A, 2906/103A, 2907/103A,
2908/103A, 2909/103A, 2912/103A, 2913/103A,
2918/103A, 2921/103A, 2922/103A, 2925/103A,
2926/103A, 2927/103A, 2928/103A, 2929/103A,
2930/103A

**INFORMATION COMMUNICATION
TECHNOLOGY (THEORY)**

Paper 1

November 2022

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 I (THEORY)

Paper 1

2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SIX questions.

Answer any FOUR questions in the answer booklet provided.

Candidates should answer the questions in English

This paper consists of 4 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** application areas of computers in a hospital environment. (3 marks)
- (b) Explain each of the following types of storage media used in a computer system:
- (i) magnetic media;
- (ii) optical media. (4 marks)
- (c) Distinguish between *auto content wizard* and *slide design* as used in a presentation program. (4 marks)
- (d) Justus intends to print a word processing document. Outline **four** print options he could set in the print dialog box. (4 marks)
2. (a) Outline **three** items that could be displayed on the *title bar* of a word processing program window. (3 marks)
- (b) Distinguish between a *dedicated* computer and a *general-purpose* computer. (4 marks)
- (c) The management of XYZ college received a system audit report indicating that their information system requires protection from malware. Explain **two** examples of malware that the system should be protected from. (4 marks)
- (d) Figure 1 is a spreadsheet extract showing examination results for a class. Use it to answer the questions that follow.

	A	B	C	D	E	
1	EXAM RESULTS					
2	STUDENT'S NAME	CAT 1	CAT2	CAT3	TOTAL	COMMENT
3	Pauline	15	10	49	74	Fail
4	Kennedy	13	16	48	77	Fail
5	Sheila	14	14	53	81	Pass

Figure 1

Using a function and cell addresses only, write a formula that was used in the spreadsheet to perform each of the following:

- (i) compute the total for Kennedy. (2 marks)
- (ii) insert the comment "Pass" for Sheila if the TOTAL exceeded 80, otherwise "Fail". (2 marks)
3. (a) Outline the function of each of the following utility programs in a computer system:
- (i) disk defragmenter;
- (ii) disk clean-up;
- (iii) file management. (3 marks)

- (b) Peter entered value 25 in cell A1 in a spreadsheet program. Write a formula that could be used to increase this value by 20%. (2 marks)
- (c) With the aid of an example in each case, describe the function of the following categories of computer keyboard keys:
- (i) Function keys;
- (ii) Navigation keys. (6 marks)
- (d) Explain the function of each of the following email features. (4 marks)



(i)



(ii)

4.

- (a) The following functions are used in a spreadsheet program:
AND, Average, OR, TRUE, IF, AverageIF
Classify them as either Statistical or Logical functions. (3 marks)
- (b) Describe each of the following data processing modes used in computer systems:
- (i) Real time;
- (ii) Time sharing. (4 marks)
- (c) Right clicking while pointing to a folder provides various operation options that could be performed on the folder. Outline **four** such operations. (4 marks)
- (d) Some Technical colleges have embraced online learning. Explain **two** challenges the students are likely to face from using this mode of learning. (4 marks)
5. (a) State **two** differences between a *workbook* and a *worksheet* as used in a spreadsheet program. (2 marks)
- (b) A microfinance company intends to computerize its operations. Outline **five** computer devices that the company requires to relay the output from computer transactions. (5 marks)
- (c) Salome, a data entry clerk, complained of body aches and pains. Outline **four** possible work-related causes that may have led to the pains. (4 marks)
- (d) A college intends to improve its operations by connecting all their computers. Outline **four** benefits the college will gain from this move. (4 marks)
6. (a) Outline **two** ways of changing the column width in a spreadsheet worksheet. (2 marks)
- (b) A company intends to acquire application software to support their operations. Outline **four** factors, other than cost, they should consider when selecting the software. (4 marks)

- (c) Table 1 shows the details of a table to be designed in a database to store records of employees.

Field Name	Data Type	Field Properties
EmployeeName	Text	

Table 1

State six field properties that could be set for this field.

(3 marks)

- (d) Figure 2 shows a type of networking topology used to design a computer network. Use it to answer the questions that follow.

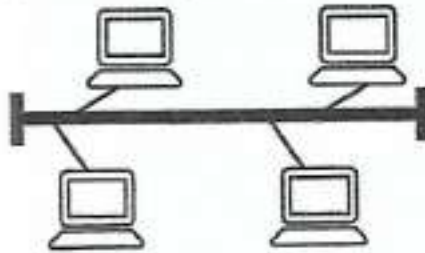


Figure2

- (i) Describe this type of network topology.
- (ii) Outline four advantages of this topology.

(2 marks)

(4 marks)

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