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INFORMATION COMMUNICATION
TECHNOLOGY (Theory)
November 2017
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 ROADS TRANSPORT MANAGEMENT
DIPLOMA IN TOURISM MANAGEMENT
DIPLOMA IN TOUR GUIDING MANAGEMENT
DIPLOMA IN PETROLEUM MANAGEMENT
DIPLOMA IN PROJECT MANAGEMENT
DIPLOMA IN INVESTMENT MANAGEMENT
DIPLOMA IN MARITIME TRANSPORT LOGISTICS
DIPLOMA IN HUMAN RESOURCE MANAGEMENT
DIPLOMA IN DISASTER MANAGEMENT
MODULE I

INFORMATION COMMUNICATION TECHNOLOGY (Theory)

Paper 1

2 hours

INSTRUCTIONS TO THE 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 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.

Turn over

1. (a) Describe **three** characteristics of *supercomputers*. (6 marks)

   (b) Ann applied the features shown in Figure 1 while editing text on a word processing document.
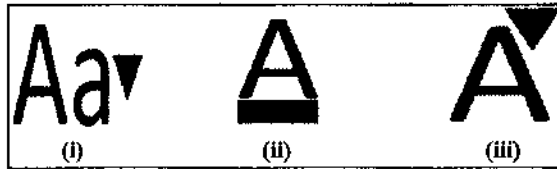

   Figure 1

   Explain the effect of each of the features labelled (i), (ii) and (iii) on the text. (3 marks)

   (c) Jonsta Co. Ltd intends to computerize their manual database. Explain **three** reasons for their intention. (6 marks)

2. (a) Outline **four** examples of utility programs of a computer system. (4 marks)

   (b) John purchased a general purpose computer for his business. Outline **five** tasks that he could perform using the computer. (5 marks)

   (c) Mali Co. Ltd intends to implement a star network topology to connect all its terminals. Explain **three** factors that the company could have considered when selecting the topology. (6 marks)

3. (a) Explain each of the following terms as used in Internet applications: (6 marks)

   (i) Browser;

   (ii) IP address;

   (iii) Unified Resource Locator (URL).

   (b) Simon would like to purchase a network server. Explain **three** specifications he could consider in the selection criteria. (6 marks)

   (c) Classify the following hardware components of a computer system as either input or output devices: (3 marks)

   Plotter; Digital camera; Light pen; Speakers; Monitor; Microphone.

4. (a) Differentiate between *magnetic* and *optical* data storage media, giving an example in each case. (5 marks)

   (b) Malipo Enterprises purchased an application software for its online business. Outline **four** benefits the enterprise would derive from the application. (4 marks)

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(c) With the aid of a diagram, describe *distributed data processing* system. (6 marks)

5. (a) Explain the technological trend in Internet development in terms of each of the following perspectives: (4 marks)

   (i) Performance;

   (ii) User access.

(b) Kelly an IT administrator drafted the rules to be observed by computer laboratory users to protect data against loss. Explain **three** rules that could have been included in the draft. (6 marks)

(c) Outline **five** functions of an operating system in a computer system. (5 marks)

6 (a) Mary intends to create a two-column page document in a word processing program. Describe **two** methods she could use to achieve her objective. (4 marks)

(b) Table 1 shows an extract of a worksheet on students' performance in an examination. Use it to answer the questions that follow.

	A	B	C	D	E	F
1	NAME	ENGLISH	MATHS	SCIENCE	AVERAGE	GRADE
2	NELLY KIM	72	71	52		
3	ANNET NANCY	53	80	53		
4	JACOB MARY	59	61	68		
5	DANIEL SIMON	89	81	78		

Table 1

(i) Using cell references only, write a function that would be used to calculate the average mark for Nelly Kim. (2 marks)

(ii) The data was to be arranged from highest to lowest based on average. Describe a spreadsheet feature that could be used to achieve this. (2 marks)

(iii) The average mark is to be categorized based on the following criteria:

   Equal to or above 50 = Pass;

   Below 50 = Fail.

   Write a function that would be used to display the grade for Nelly Kim. (3 marks)

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(c)   Joel intends to insert a picture of an animal at the bottom part of his document created using a presentation program. Describe **two** sources from which he could have gotten the picture.   (4 marks)

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