1920/101
INTRODUCTION TO ICT
November 2017
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN INFORMATION TECHNOLOGY

INTRODUCTION TO ICT

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of TWO sections; A and B.
Answer ALL the questions in section A and any FOUR questions in section B in the 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.

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SECTION A (40 marks)

Answer ALL the questions in this section.

1. Decribe each of the following types of computer networks:

    (i)   Personal Area Network (PAN);

    (ii)   Local Area Network (LAN).   (4 marks)

2. Explain each of the following terms as used in computer ethics:
    (a)   software piracy;

    (b)   plagiarism.   (4 marks)

3. Distinguish between *backup diskette* and *backup system* as used in computer systems.   (4 marks)

4. (a)   Arrange the following in *descending order* of data hierarchy:

           record, byte, field, bit, database, file.   (2 marks)

    (b)   It is the company's policy that all computer users should take a five-minute break after
           working for two to three hours. Explain the reason for this policy.   (2 marks)

5. The employees of a certain company confirmed that the software that had been installed was
    user friendly. Explain **two** reasons that could have led to their confirmation.   (4 marks)

6. Outline the function of each of the following devices as used in computer networking:

    (a)   switch;

    (b)   router.   (4 marks)

7. Describe each of the following data processing modes:
    (a)   distributed;

    (b)   multi-programming.   (4 marks)

8. Explain each of the following terms as used in computer files:

    (a)   logical files;

    (b)   physical files.   (4 marks)

9. A certain county government has proposed to set up *digital villages*. Explain **two** positive
    impacts this move would have to the people who reside in the villages.   (4 marks)

10. Computer manufacturers have invented new computers that are powered by solar energy. Outline
    two benefits of this invention.   (4 marks)

SECTION B (60 marks)

Answer any FOUR questions from this section.

11. (a)   Peru school intends to set up a computer laboratory to be equipped with new computers. Outline **three** environmental threats that the school should consider. (3 marks)

    (b)   Explain each of the following terms as used in computer software, giving an example in each case:

    (i)   operating system;

    (ii)   system utility. (6 marks)

    (c)   Mike has been tasked to acquire a printer for the company he works for. Explain **three** factors that he should consider, other than cost. (6 marks)

12. (a)   (i)   Explain the terms *wireless fidelity* as used in computer systems. (2 marks)

    (ii)   Outline **three** advantages of using a wireless network to the organization. (3 marks)

    (b)   Explain each of the following terms as used in computer security:

    (i)   data protection Act;

    (ii)   computer misuse Act. (4 marks)

    (c)   Figure 1 shows the functional structure of a computer system. Use it to answer the question that follows.
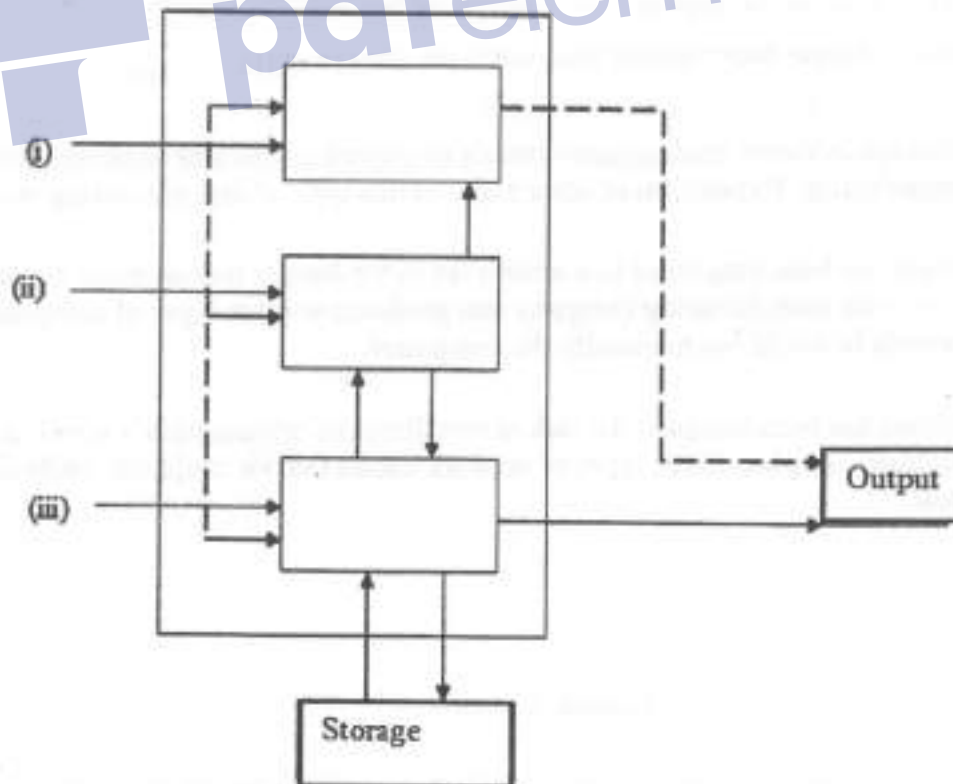

Figure 1

Explain the function of each of the parts labelled (i), (ii) and (iii). (6 marks)

13. (a) Differentiate between *freeware* and *shareware* as used in software ownership. (4 marks)

(b) Mukaro Company Ltd management experienced a lot of resistance from the employees while trying to automate its systems. Explain **three** causes of this resistance. (6 marks)

(c) Jacob intends to install a Local Area Network for the organization he works for using a suitable topology.

(i) Explain the term topology. (2 marks)

(ii) Outline **three** factors other than cost, he should consider before choosing the type of topology to use. (3 marks)

14. (a) Explain **two** ways in which a hotel could make use of ICT in its sales and marketing department. (4 marks)

(b) Sammy has been tasked to acquire document readers to be installed in an upcoming supermarket's point of sale.

(i) Outline **two** examples of document readers he could acquire. (2 marks)

(ii) Explain **two** benefits the supermarket would gain from the use of these devices. (4 marks)

(c) Rose intends to acquire an application program for typesetting her research work.

(i) Identify the appropriate program for her task. (1 mark)

(ii) Outline **four** reasons that justify the answer in (i). (4 marks)

15. (a) Netcape Airways management intends to acquire a *real time* processing system for the organization. Explain **three** advantages of this type of data processing system. (6 marks)

(b) Joash has been employed as a technician in the *library and archives* department of a computer manufacturing company that produces various types of computers. Outline **three** criteria he could use to classify the computers. (3 marks)

(c) Moses has been assigned the task of installing the organization's wired Local Area Network. Explain **three** types of network cables that he could use while carrying out the task. (6 marks)

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