

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.

SECTION A (40 marks)

Answer ALL the questions in this section.

1. Describe 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.

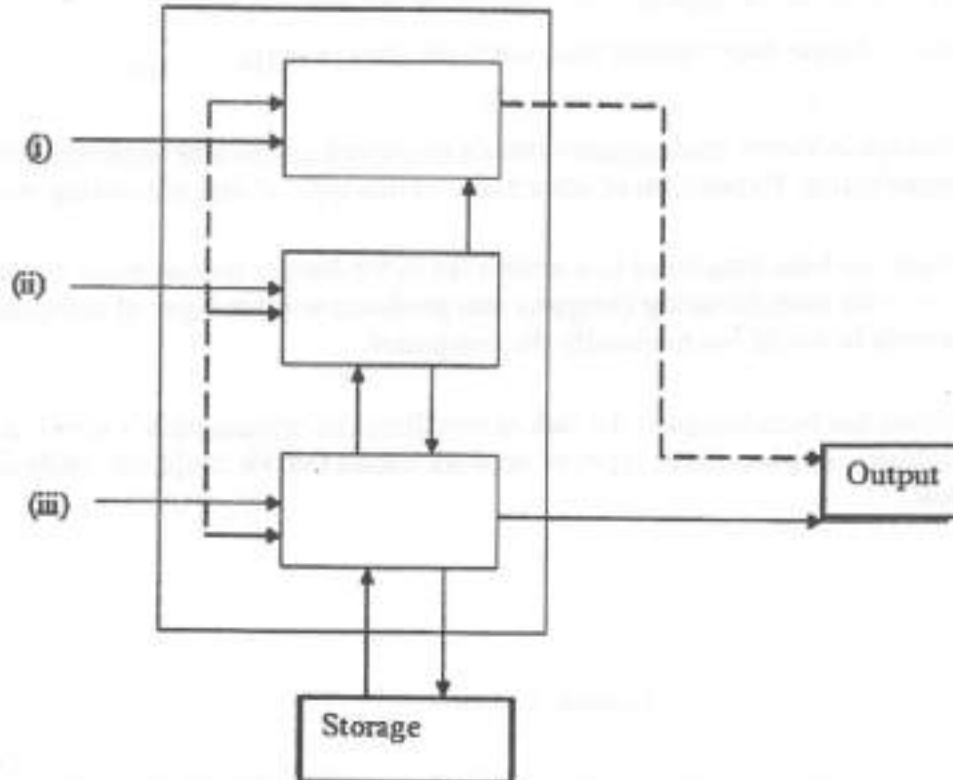


Figure 1

- 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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