

1920/101  
INTRODUCTION TO ICT  
November 2018  
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL  
CRAFT CERTIFICATE IN INFORMATION TECHNOLOGY  
MODULE I

INTRODUCTION TO ICT

3 hours

**INSTRUCTIONS TO THE CANDIDATES**

*This paper consists of TWO sections; A and B.*

*Answer ALL the questions in Section A and any FOUR in Section B 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.**

## SECTION A (40 marks)

Answer *All* the questions in this Section.

1. Define each of the following terms as used in Information Communication Technology:
  - (i) electronic data interchange;
  - (ii) telecommuting. (4 marks)
2. Outline **four** ethical issues that organizations face as a result of embracing information technology. (4 marks)
3. Karai College has availed computers for their students that are connected to the Internet. Explain **two** advantages of this move to the students. (4 marks)
4. Judy intends to purchase software from an authentic source to assist her in accounts operations. Explain **two** items that should come along with the software. (4 marks)
5. Outline **four** ways in which computer users could protect themselves from eye strain caused by computer radiations. (4 marks)
6.
  - (a) Explain the term *bandwidth* as used in computer networks. (2 marks)
  - (b) Distinguish between *transposition errors* and *transcription errors* as used in data processing. (2 marks)
7. Describe each of the following types of visual display units:
  - (i) cathode ray tube;
  - (ii) liquid crystal display. (4 marks)
8. Explain each of the following computer output devices with respect to their functionality:
  - (i) printer;
  - (ii) plotter. (4 marks)
9. The following are tasks that need to be accomplished in an office:
  - production of reports for the company;
  - management of employees records;
  - production of school magazine;
  - manipulation of numeric data collected from a research station.
 State the most appropriate application program that could be used to complete each of the tasks. (4 marks)
10.
  - (a) The transport industry has embraced the use of ICT in its operations. Outline **two** computer devices that could be installed in a vehicle. (2 marks)
  - (b) Betcha Cooperative Society intends to computerize its operations. Outline **two** ways in which the employees could be affected. (2 marks)

## Section B (60 marks)

Answer any **Four** questions in this Section.

11. (a) Explain the term *computer crime* as used in information communication technology. (2 marks)
- (b) A researcher carried out a study on the impacts of ICT on the society and concluded that the community has suffered from its negative impacts. Explain **three** possible findings from this study. (6 marks)
- (c) A large manufacturing firm has opened distribution outlets in three regions within the country and intends to connect them using computer networks.
- (i) Describe the type of network that you would recommend to the firm. (4 marks)
- (ii) Outline **three** appropriate devices that could be used during installation of such a network. (3 marks)
12. (a) With the aid of a diagram, describe each of the following network topologies:
- (i) mesh topology;
- (ii) ring topology. (6 marks)
- (b) Distinguish between *analogue computers* and *digital computers* with respect to their functionality. (4 marks)
- (c) James has been assigned with the responsibility of organizing ICT systems' back-ups and maintenance of computer files.
- (i) Explain the function of a back-up file; (2 marks)
- (ii) Outline **three** methods that could be used to create back-up files. (3 marks)
13. (a) Describe each of the following computer input devices as used in computer systems:
- (i) digitizer;
- (ii) punched tag;
- (iii) badge reader. (6 marks)
- (b) Figure 1 shows the software family tree. Use it to answer the questions that follow.

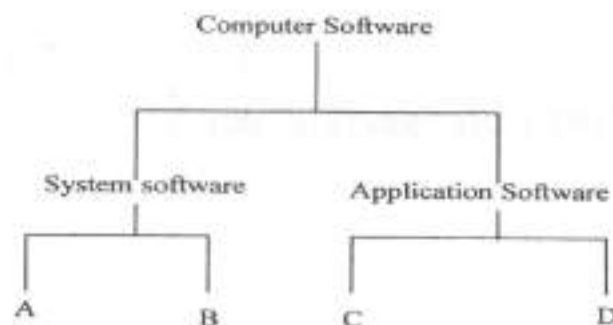


Figure 1

- (i) Identify each of the software labelled A, B, C and D; (2 marks)
  - (ii) Describe the function of each of the software labelled A and B giving an example of each. (4 marks)
  - (iii) Explain **two** methods that could be used to acquire the software labelled C and D. (3 marks)
14. (a) Describe each of the following examples of data transmission media:
- (i) UTP;
  - (ii) microwave;
  - (iii) Fibre optic cable. ✓ (6 marks)
- (b) Most colleges have set up computer laboratories to be used by the students. Explain **three** physical security measures that these colleges should adopt to protect the laboratories. (6 marks)
- (c) George is an upcoming musician who intends to use computers in his operations. Outline **three** ways in which he would benefit from the use of computers. (3 marks)
15. (a) With the aid of a block diagram, outline the stages of *data processing cycle*. (5 marks)
- (b) Computer buses are used to connect different components in a computer system. Explain the role of each of the following computer buses:
- (i) address bus;
  - (ii) data bus;
  - (iii) control bus. (6 marks)
- (c) Loise has been tasked to acquire a computer printer to be used by her organization. Outline **four** factors that she should consider. (4 marks)

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