1920/101 INTRODUCTION TO INFORMATION COMMUNICATION TECHNOLOGY

July 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN INFORMATION TECHNOLOGY

MODULE 1

INTRODUCTION TO INFORMATION COMMUNICATION TECHNOLOGY

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of FIFTEEN questions in TWO sections: A and B.

Answer ALL the questions in section A and any FOUR questions in section B in the answer booklet provided.

Candidates should answer the questions in English.

This paper consists of 5 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 questions from this section.

- 1. (a) Explain the term *Information Communication Technology* as used in computers. (2 marks)
 - (b) Describe data preparation as used in data processing. (2 marks)
- 2. (a) State two benefits that an organization gains by using computers. (2 marks)
 - (b) Ann's computer has a memory capacity of 2 Gigabytes. Convert this memory capacity to Kilobytes. (2 marks)
- 3. Differentiate between *transposition error* and *transcription error* as used in data processing. (4 marks)
- 4. (a) Figure 1 and Figure 2 show devices used in computer networking. Identify the devices. (2 marks)



Figure 1

- (b) Outline **two** factors to consider when selecting a network topology. (2 marks)
- 5. (a) Outline two control measures that should be taken to safeguard computers in a laboratory from theft. (2 marks)
 - (b) Describe the *fourth generation* computers. (2 marks)
- 6. (a) Outline two characteristics of computer viruses. (2 marks)
 - (b) Explain the term *Trojan* as used in ICT. (2 marks)
- 7. (a) Outline an effect of high humidity on computer equipment in a computer laboratory. (2 marks)
 - (b) State **two** laws contained in the Copyright Act. (2 marks)

- 8. (a) Figure 3 shows an icon on a computer desktop.
 - (i) Identify the icon.

(1 mark)



Figure 3

(ii) Outline the importance of this icon in a computer.

(1 mark)

(b) With the aid of an example, describe job extinction as used in computing.

(2 marks)

- 9. Peter has been tasked to acquire output devices. Describe a device that he would choose in order to prepare each of the following outputs:
 - (a) display notes on a wall during a conference;

(2 marks)

(b) maps of regions in a county.

(2 marks)

10. Figure 4 shows a computer interface cable. Use it to answer the questions that follow.



Figure 4

(a) Identify the cable.

(1 mark)

(b) Describe an area where the cable could be used.

(3 marks)

SECTION B (60 marks)

Answer any FOUR questions from this section.

11.	(a)	With the aid of an example, describe a magnetic scanner as used in computers.			
	(b)	Explain each of the following categories of computer system software:			
		(i)	utility;	(2 marks)	
		(ii)	multi-tasking Operating System;	(2 marks)	
		(iii)	networking Operating System.	(2 marks)	
	(c)	Abdi, a computer technician in a college has bought general-purpose software for use by members of staff. Outline three advantages and three disadvantages of using general-purpose software. (6 marks			
12.	(a)	Outlin	ne the steps followed when installing a computer application software.	(3 marks)	
	(b)	With the aid of an example in each case, explain the following terms:			
		(i)	software piracy; feement plagiarism;	(3 marks)	
		(ii)		(3 marks)	
	(c)	Expla	in three data processing methods.	(6 marks)	
13.	(a)	Peter would like to set up a computer network using star topology. Explain the role of each of the following components.			
		(i)	hub;	(2 marks)	
		(ii)	cables;	(2 marks)	
	r 1	(iii)	computers.	(1 mark)	
	(b)	Faida has a chain of supermarkets and would like to introduce computers in his operations. Explain two possible uses of these computers. (4 marks)			
	(c)	With the aid of an example in each case, describe each of the following computer devices:			
		(i)	pointing device;	(3 marks)	
		(ii)	keying device.	(3 marks)	

- 14. (a) Distinguish between computer hardware and computer software. (4 marks)
 - (b) (i) With the aid of an example, describe firmware as used in computers.

(3 marks)

- (ii) The following is a list of computer software. Categorise them as either system software or application software.

 Ms windows, Ms Word, CorelDraw, Norton Antivirus (2 marks)
- (c) With the aid of a diagram, name the parts of a *coaxial* network cable. (6 marks)
- 15. (a) (i) Outline **two** characteristics of modern computers. (2 marks)
 - (ii) Figure 5 shows an electronic device. Justifying your answer, outline **one** area of its application. (3 marks)



Figure 5

- (b) Mary works in an environment where power fluctuates. Explain two ways in which she would safeguard loss of documents created in a computer. (4 marks)
- (c) Allan, a computer technician has five computers and two printers and intends to interconnect them in a network using a bus configuration. With the aid of a diagram, describe this configuration. (6 marks)

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