

2920/101

**INTRODUCTION TO INFORMATION COMMUNICATION
TECHNOLOGY AND ETHICS**

July 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE I

**INTRODUCTION TO INFORMATION COMMUNICATION
TECHNOLOGY AND ETHICS**

3 hours

INSTRUCTIONS TO THE CANDIDATES

*This paper consists of **EIGHT** questions.*

*Answer any **FIVE** questions in the answer booklet provided.*

Candidates should answer all 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.**

2017 The Kenya National Examinations Council.

Turn over

1.
 - (a) Outline **three** precautions that should be observed while replacing a processor in a computer. (3 marks)
 - (b) Explain **three** negative impacts of computer hacking in organizations. (6 marks)
 - (c)
 - (i) Outline **two** indicators of a self motivated employee in an organization. (2 marks)
 - (ii) Magnetic disks are known for their reliability. Outline **three** measures that could be adopted to promote their reliability. (3 marks)
 - (d) Operating systems perform critical functions in a computer system. Explain **three** such functions. (6 marks)
2.
 - (a)
 - (i) List **four** examples of read only memory (ROM). (2 marks)
 - (ii) Differentiate between *avoiding* and *accommodating* conflict management techniques. (4 marks)
 - (b) Outline **four** measures that could be implemented to determine the safety of software. (4 marks)
 - (c) Simon intends to use a one-off acquisition method for a proposed software for his company. Explain **two** advantages that could be realized by his company after using this acquisition method. (4 marks)
 - (d)
 - (i) A group of module I students were carrying out an assignment on issues that hinder ergonomic awareness in organizations. Outline **three** issues that they could have established. (3 marks)
 - (ii) In Kenya, virtualization is slowly gaining popularity in the ICT sector. Outline **three** challenges that are likely to hinder its adoption. (3 marks)
3.
 - (a)
 - (i) Outline **three** types of computer mouse technologies. (3 marks)
 - (ii) Distinguish between a *micro* and a *mini* computer. (4 marks)
 - (b) Explain **three** benefits of cloud computing in organizations. (6 marks)
 - (c) Outline **three** circumstances under which a computer system will prompt a computer user to change his/her password. (3 marks)
 - (d) Operating systems come with a wide range of utility software. Outline **four** examples of such software. (4 marks)
4.
 - (a) Explain **two** disadvantages of using an open tendering procedure in organizations. (4 marks)
 - (b) Figure 1 shows a client/server network model. Outline the function of the parts labelled (i) and (ii). (4 marks)

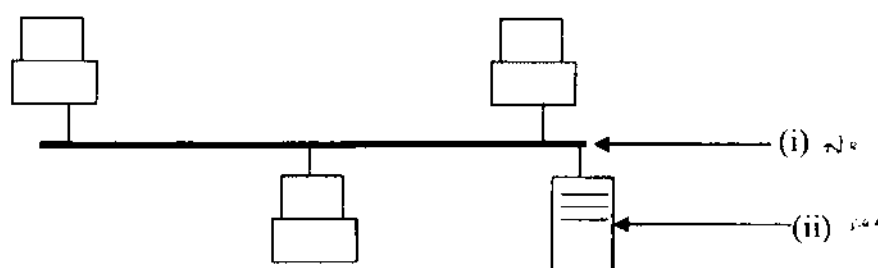


Figure 1

- (c) Audit trails are commonly used as a security feature in computer systems. Explain **two** benefits of implementing this feature. (4 marks)
- (d) (i) Several factors should be taken into consideration when selecting a power supply unit of a computer. Outline **four** factors that could be considered, other than cost. (4 marks)
- (ii) Marion was selected as a facilitator in an ICT summit. Outline **two** communication skills that could come in handy during the talk. (4 marks)
5. (a) Outline **four** examples of expansion cards that could be mounted on a computer motherboard. (4 marks)
- (b) (i) Data loss subjects organizations to a wide range of challenges. Outline **four** measures that an organization could use to mitigate these challenges. (4 marks)
- (ii) Hardware safety is paramount in any given ICT infrastructure. Outline **four** benefits of practising effective hardware safety measures in organizations. (4 marks)
- (c) (i) Scam Company Ltd intends to install a peer to peer network. Explain **two** challenges they are likely to realize after the installation. (4 marks)
- (ii) Explain **two** circumstances under which an organization would install a ring topology network. (4 marks)
6. (a) Differentiate between *serial* and *ports* as used in computers. (4 marks)
- (b) Figure 2 shows a ~~molex female power connector~~ in a computer. Identify the type of voltage in pins labeled (i), (ii), (iii) and (iv). (4 marks)

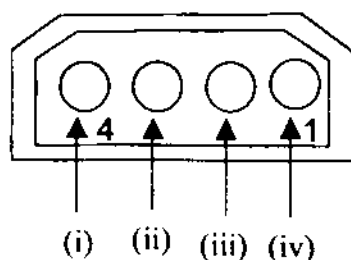


Figure 2

- (c) Majority of Kenyan homes have computers. Explain **three** challenges that these computer owners could be facing. (6 marks)
- (d) Wireless Internet has several vulnerabilities that can be easily exploited by malicious users. Explain **three** possible vulnerabilities. (6 marks)
7. (a) Explain each of the following types of processor technologies that could be used in computers:
- (i) duo core; (2 marks)
- (ii) quad core. (2 marks)
- (b) Differentiate between a *network administrator* and *systems administrator*. (4 marks)
- (c) Chipset is a key component in a computer motherboard. Explain **two** functions that are provided by this component. (4 marks)
- (d) (i) Robs Company Ltd. intends to launch a corporate responsibility project. Explain **two** goals of the proposed project that could influence the company. (4 marks)
- (ii) Lucy selected an in house software development for a new software to be used in her company. Explain **two** reasons that could have influenced her decision. (4 marks)
8. (a) Explain each of the following terms as used in computers:
- (i) port; (2 marks)
- (ii) data. (2 marks)
- (b) Caleb complained of conflicting issues with computer suppliers during delivery of goods to his company. Outline **four** causes of the conflict that would have triggered the situation. (4 marks)
- (c) (i) Outline **two** advantages of using hand held scanners. (2 marks)
- (ii) Distinguish between *management* and *leadership* as applied in life skills. (4 marks)
- (d) (i) Define the term lease as used in computer acquisition. (2 marks)
- (ii) Software piracy is one of the unethical ICT behaviours in organizations. Explain **two** impacts of this unethical behaviour. (4 marks)

THIS IS THE LAST PRINTED PAGE.