

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.

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)

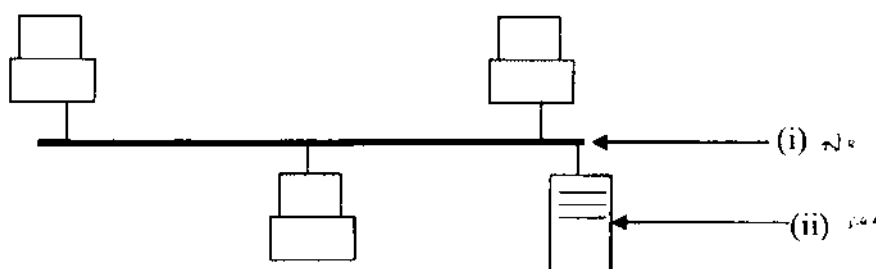


Figure 1

- (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)

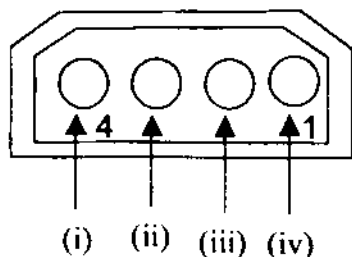


Figure 2

- (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)

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