THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE I

INTRODUCTION TO INFORMATION COMMUNICATION TECHNOLOGY AND ETHICS

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of EIGHT questions.
Answer any FIVE of the EIGHT questions 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.

1. (a) Outline **four** benefits of time management skills to a student. (4 marks)

 (b) Describe **three** characteristics of data bus in a computer central processing unit (CPU). (6 marks)

 (c) Distinguish between a *switch* and a *bridge* computer network device. (4 marks)

 (d) A supervisor uses reactive techniques to manage workplace conflicts. Explain **three** likely outcomes of this technique. (6 marks)

2. (a) Outline **four** challenges of online learning to a student. (4 marks)

 (b) Explain **two** positive impacts of ICT to a manufacturing company. (4 marks)

 (c) Janet, an ICT student, suffers from depression. Describe **three** symptoms that she may exhibit. (6 marks)

 (d) An organisation uses *avoid-avoid* conflict resolution strategy. Explain **three** problems associated with this strategy. (6 marks)

3. (a) Outline **two** roles of a database administrator in an organisation. (2 marks)

 (b) Bora institute is in the process of acquiring computer software. Describe **three** methods that they could use. (6 marks)

 (c) A musician decided to use a DVD-RW to store his music. Explain **three** reasons that could have led to this decision. (6 marks)

 (d) (i) A secretary at Mambo Company, carried out the following task in the office on a particular day:

- *Making a personal emergency phone call using the company phone;*
- *Opening and replying to office emails;*
- *Typing the boss son's school project;*
- *Typing a dismissal letter for an employee;*
- *Planning the boss' diary;*
- *Searching online for the latest office wear.*

 Categorize each task as either ethical or unethical. (3 marks)

 (ii) Daztech Company intends to secure data against loss. Outline **three** approaches they could use to achieve this. (3 marks)

4. (a) Explain each of the following types of system software:

 (i) Firmware; (2 marks)

 (ii) Language translator. (2 marks)

 (b) John was advised to patent his information communication technology innovation. Explain **three** reasons for this advice. (6 marks)

(c)   Distinguish between *trackball* and *optical* computer mice.   (4 marks)

(d)   Quitech Company is in the process of connecting all its branches, suppliers and customers.

      (i)   State the most appropriate computer network they could use.   (2 marks)

      (ii)   Explain **two** reasons for using the network stated in (i).   (4 marks)

5.   (a)   Outline **four** characteristics of a twisted pair cable.   (4 marks)

    (b)   (i)   Explain the term emotions as used in life skills.   (2 marks)

      (ii)   Describe **two** people skills that a student should possess.   (4 marks)

    (c)   Differentiate between *privacy* and *confidentiality* as used in ICT.   (4 marks)

    (d)   Vintech Company installed a laser printer for use. Explain **three** benefits the company would accrue from this printer.   (6 marks)

6.   (a)   (i)   State **three** computers classified according to their functionality.   (3 marks)

      (ii)   James installed the latest application software in his computer. Outline **two** features of this software.   (2 marks)

    (b)   Differentiate between *reliability* and *efficiency* as used in computer software.   (4 marks)

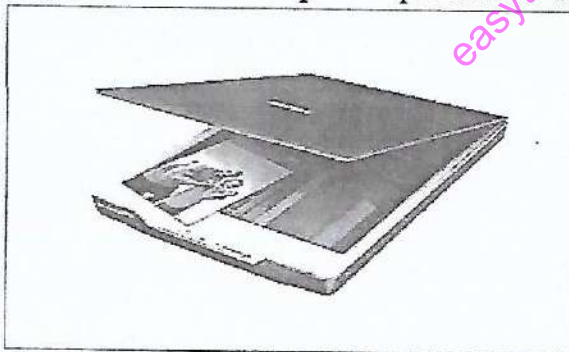   (c)   Figure 1 shows a computer input device. Use it to answer the questions that follow.

Figure 1

      (i)   Identify this device in Figure 1.   (1 mark)

      (ii)   Explain **two** disadvantage of the device identified in (i)   (4 marks)

    (d)   Explain **three** circumstances that could lead an organisation to develop a data protection policy document.   (6 marks)

7.   (a)   Outline **four** ergonomic practices while working with a computer.   (4 marks)

    (b)   Explain each of the following terms as used in conflict management:

      (i)   smoothing;   (2 marks)

      (ii)   competing.   (2 marks)

(c) Postech Company carried out a corporate social responsibility activity in the local market. Explain **three** benefits the company would accrue from this. (6 marks)

(d) A company uses the fourth-generation computers in its offices. Explain **three** characteristics of these computers. (6 marks)

8. (a) Outline **four** disadvantages of a flash disk as a computer storage device. (4 marks)

(b) Software piracy is a highly practiced unethical behaviour in ICT. Explain **three** risks of this software to the user. (6 marks)

(c) Mary was advised to be moving occasionally while using a computer. Explain **three** benefits of this movement. (6 marks)

(d) Distinguish between *serial* and *parallel* computer ports. (4 marks)

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