2920/101
INTRODUCTION TO INFORMATION COMMUNICATION
TECHNOLOGY AND ETHICS
November 2022
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 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 3 printed pages.

Candidates should check the question paper to ascertain that all the
pages are printed as indicated and that no questions are missing.

Turn over

1. (a) Outline **four** uses of computers in the mining industry. (4 marks)

   (b) Explain **three** characteristics of mini computers. (6 marks)

   (c) Elimu Institute intends to acquire computers by leasing. Explain **three** challenges the institute is likely to encounter. (6 marks)

   (d) With the aid of a diagram, describe mesh computer network topology. (4 marks)

2. (a) Outline **four** advantages of a wireless computer mouse. (4 marks)

   (b) A student has been experiencing stress due to low academic grades. Explain **three** ways the student could manage this stress. (6 marks)

   (c) Differentiate between *copyright* and *patent* as used in information communication technology legislation. (4 marks)

   (d) Ziptech Company disposed their old computers in an open field. Explain **three** hazards this disposal could have on the environment. (6 marks)

3. (a) Outline **four** causes of conflicts among employees in an organisation. (4 marks)

   (b) A computer technician preferred to use a coaxial cable in a computer network. Explain **three** reasons for this preference. (6 marks)

   (c) Anita an ICT student has been experiencing low self-esteem. Explain **three** possible causes that could have led to this. (6 marks)

   (d) Figure 1 shows a computer port. Use it to answer the questions that follow.

   Figure 1

   (i) Identify this port. (1 mark)

   (ii) State **two** devices that could be connected through the port identified in (i). (1 mark)

   (iii) Outline **two** advantages of the port identified in (i) (2 marks)

4. (a) Outline **four** factors a company would consider before engaging in corporate social responsibility. (4 marks)

   (b) Differentiate between *collaborative* and *accommodative* conflict management approaches. (4 marks)

   (c) Explain **three** circumstances that could necessitate the use of a light pen as a computer input device. (6 marks)

   (d) Goldy Company hired a system designer. Explain **three** roles that this computer personnel would play in the company (6 marks)

5. (a) Outline **four** disadvantages of a magnetic tape as a computer storage device. (4 marks)

(b) Describe **three** features of second generation computers. (6 marks)

(c) Paul has been selling pirated software. Explain **three** reasons that could have led to this unethical behaviour. (6 marks)

(d) Differentiate between *defragmenter* and *compressor* utilities software. (4 marks)

6. (a) Outline **four** circumstances that could lead to the use of outsourcing method for software acquisition. (4 marks)

(b) Describe **three** characteristics of optical storage devices. (6 marks)

(c) Joyce, a programme uses an ergonomic seat in her office. Explain **three** benefits of using this seat. (6 marks)

(d) Differentiate between *install* and *configure* as used in computer software. (4 marks)

7. (a) Outline **four** negative impacts of information communication technology to a college student. (4 marks)

(b) Differentiate between *of-the-shelf* and *bespoke* software. (4 marks)

(c) Freetech Company has implemented user authentication measures for data security. Explain **three** challenges the company is likely to encounter. (6 marks)

(d) Helen, an ICT student possesses good interpersonal skills. Explain **three** such skills. (6 marks)

8. (a) Explain **three** advantages of a non-impact printer. (6 marks)

(b) Differentiate between *intranet* and *extranet* as used in computer networks. (4 marks)

(c) The following are examples of systems controls: *employee rotation, password, CCTV, locks, biometric* and *motivation*.

Classify each of these examples to its respective type of control. (6 marks)

(d) Gaztech Company has put in place measures to reduce unethical behaviour in its information communication technology department. Explain **two** such measures.

(4 marks)

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