2920/101
INTRODUCTION TO INFORMATION COMMUNICATION
TECHNOLOGY AND ETHICS
July 2021
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 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.

1. (a) Outline **four** advantages of using coaxial cable in computer networking. (4 marks)

(b) Explain **three** uses of information communication technology in the manufacturing sector. (6 marks)

(c) Distinguish between *control bus* and *address bus* as used in computers. (4 marks)

(d) John, a manager at Citiview Company, has noticed conflicts amongst his employees. Explain **three** types of conflicts that he could have noticed. (6 marks)

2. (a) (i) List **four** ICT equipment likely to be found in an organisation other than computers. (2 marks)

(ii) Outline **four** features of a third generation computer. (4 marks)

(b) Classify each of the following software as either application or housekeeping. (4 marks)

Open office, merge, sort, spread sheet, anti-virus, presentation, defragmenter, database.

(c) Describe each of the following factors considered when selecting computer software:

(i) authenticity; (2 marks)

(ii) portability. (2 marks)

(d) Kwetu Technical Institute intends to undertake a social responsibility exercise in its neighbourhood. Explain **three** factors the institution should consider when choosing an activity to engage in. (6 marks)

3. (a) Outline **four** advantages of a linear network topology. (4 marks)

(b) Differentiate between *conflict resolution* and *conflict management*. (4 marks)

(c) Joan uses a computer regularly. Explain **three** measures she could put in place to ensure that her computer monitor is ergonomically safe. (6 marks)

(d) Elimu Technical Institute held a talk on methods of stress management. Explain **three** methods that could have been mentioned. (6 marks)

4. (a) Outline **four** roles of a computer programmer. (4 marks)

(b) Distinguish between *leasing* and *outsourcing* system acquisition methods. (4 marks)

(c) Mary used a microphone to capture data into a computer. Explain **three** challenges she could have faced while using this device. (6 marks)

(d) Explain **three** circumstances for the preference of tailor made software. (6 marks)

5. (a) Outline **four** ways that a student could use to improve self-esteem. (4 marks)

(b) Describe **three** benefits of social responsibility to an organisation. (6 marks)

(c) Distinguish between *avoiding* and *competing* as used in conflict management. (4 marks)

(d) One of the considerations made when acquiring a computer is the processor. Explain **three** specifications that one could use in this consideration. (6 marks)

6.   (a)   Explain **two** circumstances that could lead to the use of DVD-RW for data storage.

                                                (4 marks)

   (b)   Conflict amongst college students is one reason for poor performance. Explain **three** causes of such conflicts.

                                                (6 marks)

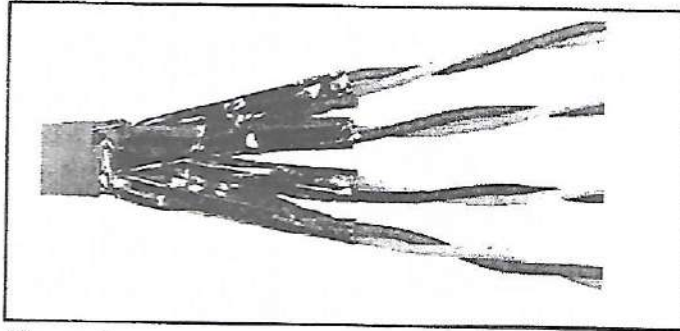   (c)   Figure 1 shows a cable used in computer network. Use it to answer the questions that follow.

Figure 1

       (i)   identify the cable shown in the figure;   (2 marks)

       (ii)   describe **two** benefits of using this cable.   (4 marks)

   (d)   Haztech Company intends to put in place measures to control unethical behaviour amongst its ICT personnel. Outline **four** approaches the company could use.   (4 marks)

7.   (a)   Outline **four** advantages of using a Magnetic Ink Character Reader (MICR) as an input device.   (4 marks)

   (b)   Explain **three** circumstances that could necessitate the use of a plotter for printing.

                                                (6 marks)

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

   (d)   James was advised to use a strong password in his computer. Explain **three** characteristics that this password should poses.   (6 marks)

8.   (a)   Explain **three** benefits of good time management to a college student.   (6 marks)

   (b)   Differentiate between *analogue* and *digital* computers.   (4 marks)

   (c)   A student uses a foot rest while using a computer in the laboratory. Explain **three** reasons that could have led to this use.   (6 marks)

   (d)   John created a software that he intends to release to the market and he was advised to copyright it. Explain **two** benefits that he is likely to accrue if he takes this advice.

                                                (4 marks)

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