

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.

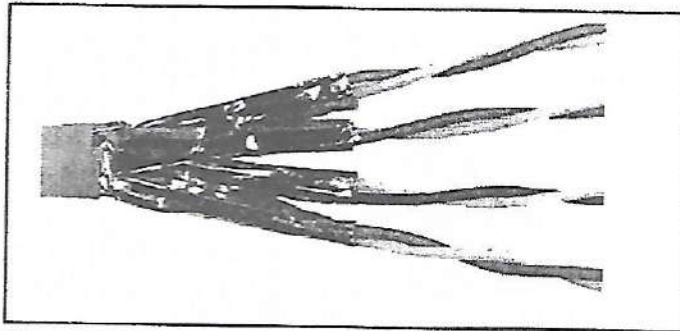


Figure 1

- (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 possess. (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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