

1920/101
INTRODUCTION TO INFORMATION
COMMUNICATION TECHNOLOGY
July 2019
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
CRAFT CERTIFICATE IN INFORMATION TECHNOLOGY
MODULE I

INTRODUCTION TO INFORMATION
COMMUNICATION TECHNOLOGY

3 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of TWO sections, A and B.
Answer ALL the questions in section A and any FOUR in section B 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.

SECTION A (40 marks)

Answer **ALL** the questions in this section

1. Explain each of the following activities as used in data processing:
 - (i) summarize;
 - (ii) classify. (4 marks)
2. Distinguish between *analogue* computers and *digital* computers. (4 marks)
3. Pitso Company chose to use *in-house development method* for its application software. Explain **two** benefits the company would derive from the use of this method. (4 marks)
4. Outline **four** characteristics of *second generation* computers. (4 marks)
5. Josh saved each of the following files on his computer.
Josh.rtf, josh.docx, josh.accdb, josh.xls
State the application software that he used to create each of the files. (4 marks)
6. Describe each of the following types of computer networks:
 - (i) wide area network;
 - (ii) private area network. (4 marks)
7. Describe each of the following types of computer software:
 - (i) open source;
 - (ii) proprietary. (4 marks)
8. A certain shop installed a *point of sale system* for its operations. Outline **four** input devices that could be included in the system. (4 marks)
9. A company that has branches all over the country intends to install a distributed data processing system to support its operations. Explain **two** benefits of this system to the company. (4 marks)
10. Differentiate between *trojan horse* and *logic bomb* viruses in computers. (4 marks)

SECTION B (60 marks)

Answer any **FOUR** questions in this section

11. (a) Outline **three** physical measures that could be put in place to ensure data security in an organization. (3 marks)
- (b) Joel intends to acquire an operating system for his computer. Explain **three** factors other than cost, that he should consider when acquiring the software. (6 marks)
- (c) With the aid of a diagram, outline the *basic electronic components* of a computer system. (6 marks)
12. (a) Outline **three** advantages of *peer-to-peer* type of computer network. (3 marks)
- (b) Describe each of the following types of file organization methods in a computer system:
- (i) serial;
 - (ii) sequential;
 - (iii) random. (6 marks)
- (c) An ICT technician has been tasked to set up a computer network for a certain company. Explain **three** types of network topologies that he could use. (6 marks)
13. (a) Kurgan Company has connected all its computers to *uninterruptible power supply* devices. Outline **three** benefits of using these devices. (3 marks)
- (b) (i) Outline **two** advantages of *satellite communication* media. (2 marks)
- (ii) With the aid of a diagram, describe *coaxial cable* as used in computer networking. (4 marks)
- (c) Computer users suffer from various injuries as a result of prolonged use of computers. Explain **three** types of such injuries. (6 marks)
14. (a) In a certain company some employees have been suspected of engaging in unethical behavior while using computers. Outline **three** observations that could have raised this suspicion. (3 marks)
- (b) With the aid of a diagram, outline the stages of *data processing*. (6 marks)
- (c) Most companies have embraced the use of mobile money transfer in their financial operations. Explain **three** advantages of this approach to the companies. (6 marks)

15. (a) Describe each of the following devices as used in computer networking:
- (i) gateway;
 - (ii) router;
 - (iii) switch. (6 marks)
- (b) Football associations in the world have integrated the use of Information Communication Technology to monitor ongoing games. Explain **three** ways in which the technology is used. (6 marks)
- (c) Outline **three** reasons that would necessitate an organization to adopt the use of *external hard disks* in their operations. (3 marks)

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