

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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