

1920/201
COMPUTER MAINTENANCE AND SUPPORT
July 2016
Time: 3 hours



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

COMPUTER MAINTENANCE AND SUPPORT

3 hours

INSTRUCTIONS TO CANDIDATES:

*This paper consists of **TWO** sections; **A** and **B**.*

*Answer **ALL** the questions in **section A** and **any FOUR** of the **FIVE** questions in **section B** on 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 from this section.

1. State **four** differences between *software* and *hardware* as used in computers. (4 marks)
2. Explain **two** reasons for the need to keep away liquids from areas where computers are used. (4 marks)
3. Outline **four** benefits that a college may gain by conducting regular computer maintenance. (4 marks)
4. Explain a circumstance that may cause the need of each of the following maintenance in an organisation:
 - (a) adaptive maintenance; (2 marks)
 - (b) perfective maintenance. (2 marks)
5. State the function of each of the following components on a computer motherboard:
 - (a) expansion slot; (2 marks)
 - (b) connectors. (2 marks)
6. Distinguish between *address bus* and *data bus* as used in computers. (4 marks)
7. Explain how each of the following data risks can occur during the installation of a computer system:
 - (a) data loss; (2 marks)
 - (b) data corruption. (2 marks)
8. Define each of the following terms as used in computers:
 - (a) clock speed; (2 marks)
 - (b) bytes. (2 marks)
9. State **two** differences between *RAM* and *ROM* as used in computers. (4 marks)
10.
 - (a) Explain the term *active partition* as used in computers. (2 marks)
 - (b) Explain the importance of considering energy consumption when acquiring a computer monitor. (2 marks)

SECTION B (60 marks)

Answer **FOUR** questions from this section.

11. (a) Anita a technician, noted that a computer keyboard was dusty. Outline the basic steps she would take when cleaning it. (4 marks)
- (b) Outline **five** areas to pay attention to when cleaning the *ink-jet printers*. (5 marks)
- (c) A computer technician has acquired a new computer processor. Outline the procedure that he should follow when installing it. (6 marks)

12. (a) Jane, a technician noted the symbols shown in figure 1 and figure 2 on several electronic components. Explain the meaning of each. (4 marks)



Figure 1



Figure 2



- (b) A technician was required to format a hard disk of a computer. Explain **three** possible reasons that may have led to this. (6 marks)
- (c) The following is a list of computer components
Mouse, DVD drive, Memory, Hard disk, Floppy disk drive, Monitor, Motherboard, Processor
 Identify those which derive power directly from the power supply unit. (2 marks)
- (d) Distinguish between *surge suppressor* and *line conditioner* as used in a computer laboratory. (3 marks)

13. (a) After installing a new system board in a computer system, it was noted that the hard-drive LED on the front of the computer was not turning on.
- (i) Outline **two** possible causes of this occurrence (2 marks)
- (ii) Explain **one** way in which each problem in (i) could be solved. (4 marks)
- (b) A technician was troubleshooting a computer with the aid of POST.
- (i) Write the acronym POST in full. (1 mark)
- (ii) Outline **four** functions of BIOS during the POST procedure in a computer. (4 marks)

- (c) Two technicians assembled PCs from scratch. Technician A, installed the operating system before final chassis assembly while technician B installed the operating system as soon as the motherboard, memory, and hard drive were installed. State the possible reasons for each preference. (4 marks)
14. (a) When John was installing a software in a computer from a DVD, he noted that its surface was dirty.
- (i) Outline **three** cleaning materials that he would use to clean the storage medium. (3 marks)
- (ii) Other than using DVD, explain **two** other ways in which he could install the software. (4 marks)
- (b) Explain the function of each of the following combination keys when trouble shooting in a computer running on a windows operating system.
- (i) Control-Alt-Delete (2 marks)
- (ii) Alt + tab (2 marks)
- (c) When Lina, a technician completed assembling a computer, she noted that the hard drive was not spinning when the system-unit was powered.
- (i) Outline **two** possible causes of this occurrence. (2 marks)
- (ii) Explain **one** way in which the problem in (i) could be solved. (2 marks)
15. (a) Organisations such as schools immensely use a lot of electronic equipment which are later disposed indiscriminately as waste.
- (i) Outline **four** ways in which these electronic wastes affect our environment. (4 marks)
- (ii) Some of the electronic wastes are known to have chemicals which are harmful to human beings.
- I. State **two** of these chemicals that are likely to be in the electronic waste. (2 marks)
- II. Outline the effect of each of the chemicals in (i) to our health. (2 marks)
- (b) Tiptop is a company which deals with software development. The management has opted to introduce a Technical Support Service department. Outline **four** ways in which this department could benefit their customers. (4 marks)
- (c) Isa, a technician, acquired software which was accompanied with a technical documentation. Outline **three** ways in which he would use this document. (3 marks)

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