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COMPUTER MAINTENANCE AND SUPPORT
November 2017
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 in this section.

1. Explain **two** advantages of *parallel* data transfer method in computers. (4 marks)
2. Differentiate between *virtual memory* and *cache* memory. (4 marks)
3. Sim-Sim Company Ltd. intends to launch an electronic materials recycling project in the coastal region of Kenya. Explain **two** challenges the company could face while carrying out the project. (4 marks)
4. Distinguish between *sector* and *volume* as used in computer storage media. (4 marks)
5. Describe each of the following motherboard expansion interfaces:
 - (a) PCI; (2 marks)
 - (b) ISA. (2 marks)
6. Explain the following terms as used in computer hardware:
 - (a) rotational delay; (2 marks)
 - (b) pipelining. (2 marks)
7. Jane, a computer technician preferred using online support materials instead of user guides. Explain **two** benefits that she could realize while using the online support materials. (4 marks)
8. Describe **two** circumstances under which a computer clock should be adjusted. (4 marks)
9. Outline **four** precautions that should be observed when replacing a printer cartridge. (4 marks)
10. A lecturer instructed students to store their document on a recordable compact disk (CD-R) and not in a flash memory. Explain **two** reasons that could justify the lecturer's instruction to the students. (4 marks)

SECTION B (60 marks)

Answer **FOUR** questions from this section.

11. (a) State **four** types of application software that could be used in computers. (4 marks)
- (b) Outline **five** hardware specifications that should be considered when upgrading a laptop. (5 marks)
- (c) A group of Module II students were carrying out an assignment on the benefits of effective computer disposing policy in organizations. Explain **three** benefits that they could have identified. (6 marks)
12. (a) Support desk software is a phenomenon in every organization.
- (i) Name **four** examples of such software that could be found in organizations. (2 marks)
- (ii) Outline **four** functions that could be rendered by this software. (4 marks)
- (b) Tessie noted an email that appeared as if it was sent by her bank requesting her to confirm her account details.
- (i) Identify the type of attack depicted in the email. (1 mark)
- (ii) Outline **four** security measures that she could use to mitigate the type of attack identified in (i). (4 marks)
- (c) Paul was advised by his friends to stop placing his laptop on the bed while using it. Explain **two** possible effects on the laptop that could have informed this advice. (4 marks)
13. (a) (i) Computer manufacturers use several technologies of random access memory when designing computers. Outline **three** of these technologies. (3 marks)
- (ii) Random access memory comes with a wide range of error detection schemes. Explain **two** error detection schemes that could be used. (4 marks)
- (b) BIOS perform several critical roles in a computer. Explain **two** roles carried out by BIOS during booting. (4 marks)

- (c) Figure 1 shows a section of the rear side of ATX power supply unit. Outline the function of each of the parts labeled (i) and (ii). (4 marks)

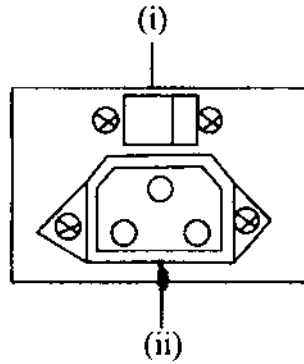


Figure 1

14. (a) John was required to remove temporarily files during computer maintenance exercise. Outline **three** methods that he could use. (3 marks)
- (b) Christine was required to repair a flatbed scanner. Outline **four** tools that she could use. (4 marks)
- (c) NTFS is used with modern computers. Outline **four** features that could be promoting its popularity. (4 marks)
- (d) Heat sinks come in two variant types. Explain **two** types that could be found in computers. (4 marks)
15. (a) List **two** examples of power connectors in a computer. (1 mark)
- (b) Figure 2 shows an IDE hard disk interface. Outline the function of each of the parts labeled (i) and (ii). (4 marks)

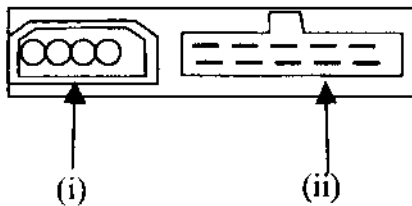


Figure 2

- (c) Alice was required to disassemble a desktop computer for further troubleshooting. Outline **six** criteria that she could use. (6 marks)
- (d) Distinguish between *chipset* and *device controller* as used in computers. (4 marks)

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