1920/201
COMPUTER MAINTENANCE
AND SUPPORT
November 2021
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 from 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.

Turn over

SECTION A (40 marks)

Answer ALL the questions in this section.

1. Explain **two** roles of a system clock as used in computers. (4 marks)

2. Differentiate between an *analog* computer and a *digital* computer. (4 marks)

3. Explain **two** circumstances under which a user could upgrade the computer processor. (4 marks)

4. Paul had recommended the use of cloud printing technology to the employees in his organizations. Explain **two** challenges the employees would experience while using this service. (4 marks)

5. Outline **four** factors to be considered when selecting a computer's power *supply unit*, other than cost. (4 marks)

6. ABC Company Ltd. computer department intends to employ a support desk technician. Outline **four** qualities of the proposed personnel that the company would consider for the job. (4 marks)

7. Explain **two** types of expansion slots that could be found on computers. (4 marks)

8. Computer sound cards perform different functions. Outline **four** functions of such cards. (4 marks)

9. James intends to dispose a number of old computers from his organization. Explain **two** ways he could use to disposing these computers. (4 marks)

10. Explain each of the following terms as used in computer support:

    (i) tutorial; (2 marks)

    (ii) wizard. (2 marks)

*Answer **four** questions from this section.*

11. (a) Outline **four** types of computer backups. (4 marks)

    (b) Outline **five** signs of computer monitor failure that would be experienced by users.
    (5 marks)

    (c) Explain **three** circumstances under which a scheduled computer maintenance would be rescheduled. (6 marks)

12. (a) The manufacturers of computer motherboards design them with different form factors.

    (i) List **six** examples of form factors that could be designed. (3 marks)

    (ii) Outline **four** guidelines that could be used in the replacement of the motherboard component. (4 marks)

    (b) Joan was required to update the BIOS software for a client's computer. Outline **four** precautions that she should observe during the update. (4 marks)

    (c) For each of the following scenario, state the most appropriate type of memory applicable:

    (i) compensate for physical memory shortages by temporarily transferring data from random access memory (RAM) to disk storage; (1 mark)

    (ii) stores data that is frequently used by the processor; (1 mark)

    (iii) data is lost immediately the computer losses, its power; (1 mark)

    (iv) data is permanently stored in a chip. (1 mark)

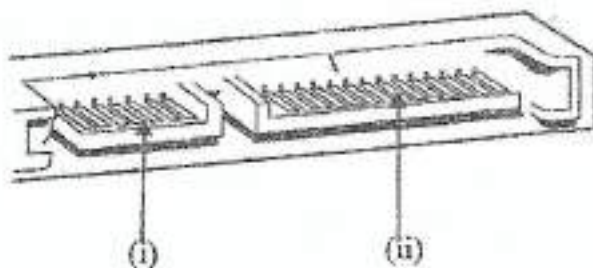13. (a) Figure 1 shows a section of a SATA hard disk. Use it to answer the questions that follow.

Figure 1

    (i) Identify the ports labelled (i) and (ii). (2 marks)

    (ii) state the function of the ports labelled (i) and (ii). (2 marks)

(b) With the aid of a diagram, describe the components of a Central Processing Unit.

(6 marks)

(c) List **two** types of USB connectors that could be found on computers. (1 mark)

(d) The North-bridge chip plays a critical role in the performance of a computer system. Explain **two** function that are likely to be performed by the chip. (4 marks)

14. (a) Dusting is one of the tasks that should be carried out during routine computer maintenance. Outline **three** reasons for carrying out this task. (3 marks)

(b) During a training session, John decided to use a computer-based training method. Explain **two** advantages he could realize when using this training method. (4 marks)

(c) Susan was required by her employer to create a computer inventory record for the ICT department. Outline **four** reasons that could have led to the request. (4 marks)

(d) Parallel ports are widely used to connect I/O devices in computers. Outline **four** advantages of these ports. (4 marks)

15. (a) Alice assembled a computer but after powering on the computer, CMOS date and time settings and BIOS configurations were lost.

(i) Describe the term *CMOS*. (2 marks)

(ii) Outline **four** possible remedy that she could use to solve the problem. (4 marks)

(b) Jane was required to troubleshoot a computer that its operations were disrupted by a malicious software.

(i) State the most probable type of computer virus that she identified. (1 mark)

(ii) Explain **two** strategies that she could use to mitigate the problem identified in (i). (4 marks)

(c) Justine was required to update an application software for a client's computer. Outline **four** reasons of carrying out these updates. (4 marks)

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