

1920/201
COMPUTER MAINTENANCE
AND SUPPORT (THEORY)
July 2017
Time: 3 hours



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

COMPUTER MAINTENANCE AND SUPPORT

Theory

3 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of TWO sections; A and B.

Answer ALL the questions in section A and any FOUR questions 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 from this section.

1. (i) Explain the term *latency* as used in magnetic disks. (2 marks)
(ii) Describe the term *thin client* as used in computers. (2 marks)
2. Describe each of the following types of hard disk interfaces:
(i) IDE; (2 marks)
(ii) SATA. (2 marks)
3. Janice intends to use a USB port instead of a parallel port to connect peripheral devices on her computer. Outline **four** advantages of USB port that could be influencing her choice. (4 marks)
4. Explain **two** circumstances under which a computer user would use a *wireless* printer connection. (4 marks)
5. Explain **two** limitations of *serial ports* as used in computers. (4 marks)
6. Differentiate between *parity* and *non-parity* methods of detecting memory errors. (4 marks)
7. Explain **two** negative effects of electronic waste. (4 marks)
8. Outline **four** safety aspects that should be considered when selecting a power *supply unit*. (4 marks)
9. Distinguish between *disk compressor* and *disk defragmenter* utilities as used in computers. (4 marks)
10. Philip was required to conduct training on the use of new computer systems in his company. Explain **two** training methods that could have used. (4 marks)

SECTION B (60 marks)

Answer any **FOUR** questions from this section.

11. (a) Computer technicians experience several challenges when carrying out routine maintenance. Outline **three** challenges they could experience. (3 marks)
- (b) Harry was required to repair a client's monitor. Describe **two** tools that he could use. (4 marks)
- (c) A lecturer described FAT 16 to a computer maintenance and support class. Outline **four** disadvantages of FAT 16 that he could have mentioned. (4 marks)
- (d) Differentiate between *duo core* and *quad core processor* types. (4 marks)
12. (a) Daughter boards are commonly used when assembling computers.
- (i) Outline **three** scenarios when they are applicable. (3 marks)
- (ii) Outline **four** examples of daughter boards in computers. (4 marks)
- (b) Explain the function of each of the following keys during Power On Self Test (POST) process in a computer system.
- (i) Esc; (2 marks)
- (ii) F10. (2 marks)
- (c) Figure 1 shows an ATX power connector used in a motherboard. Outline the function of each of the parts labeled (i) and (ii). (4 marks)

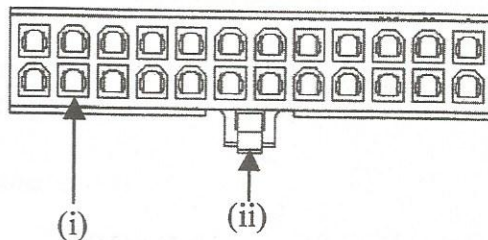


Figure 1

13. (a) IT support professionals are required in every organization.
- (i) Outline **two** skills that should be exhibited by these professionals. (2 marks)
- (ii) Outline **four** typical routines procedures that could be assigned to these professionals. (4 marks)
- (b) Sarah noted that some of her documents in her computer were encrypted and she was forced to pay a certain fee through Internet to decrypt her files.
- (i) Identify this type of attack. (1 mark)
- (ii) Outline **four** possible causes for the attack identified in (i). (4 marks)
- (c) Amani was required to replace a faulty RAM chip in a computer. Outline **four** precautions that she could observe in order to accomplish the task. (4 marks)

14. (a) Figure 2 shows ports used to connect a computer monitor. Identify the ports labeled (i) and (ii). (4 mark)

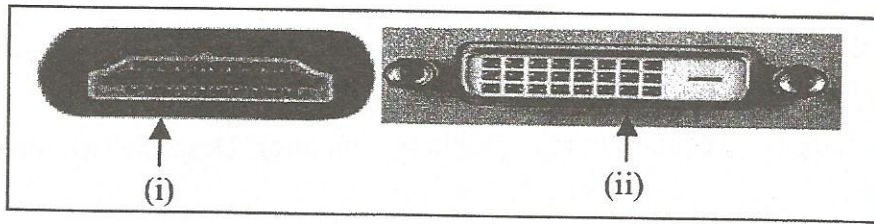


Figure 2

- (b) Peter replaced a printer cartridge with a new one but the printer produced distorted print outs. Explain **three** possible causes for this problem. (6 marks)
- (c) List **two** types of computer mouse. (1 mark)
- (d) Distinguish between *primary* memory and *secondary* memory as used in computers. (4 marks)
15. (a) List **four** types of application software used in computers. (4 marks)
- (b) Outline **five** factors that should be considered selecting a troubleshooting technique. (5 marks)
- (c) Explain **three** circumstances under which an organization could consider disposing computers. (6 marks)

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