



# **KISII UNIVERSITY**

## **UNIVERSITY EXAMINATIONS**

### **FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN INFORMATION TECHNOLOGY**

**FIRST SEMESTER, 2023/2024**

**(AUGUST-DECEMBER, 2023)**

**CIT 0109: COMPUTER MAINTENANCE AND SUPPORT**

**STREAM: Y1 S1**

**TIME: 2 HOURS**

**DAY: WEDNESDAY, 09.00 – 11.00 AM**

**DATE: 29.11.2023**

#### **INSTRUCTIONS**

- 1. Do not write anything on this question paper.**
- 2. Answer Question ONE [Compulsory] and any other TWO Questions**

#### **QUESTION ONE.**

- a) (i) Explain the term pixel as used in computer monitors. (2 marks)
- (ii) Describe platter as used in magnetic disks. 4marks (4 marks)
- b) Differentiate between DIMM and SIMM as used in computer memory. (4 marks)
- ii) With the aid of examples, outline two roles of an address bus in a computer. (4 marks)
- (4 marks)
- iii) Outline four functions of a power supply unit in computers.
- iii) Explain two reasons for donating old computers to learning institutions.
- iv) Distinguish between solid state memories and magnetic drives in computers.
- c) Patricia was required to troubleshoot a computer monitor that was not displaying the graphical user interface after the POST. Outline four possible causes of the problem. (6 marks)

## QUESTION TWO

- (a) Figure I shows ports used in a computer. Identify the ports labeled (i) and (ii) stating the I/O devices that connect to each. (4 marks)

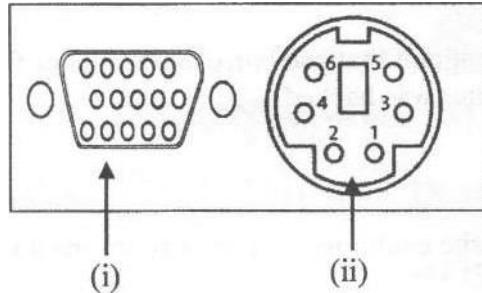


Figure I

- (b) Paul was advised by his friend to replace a faulty processor for his computer. Explain three possible causes of the problem. (6 marks)
- (c) List two types of computer keyboard interfaces. (2 mark)
- (d) Distinguish between Xeon and core- i7 processors as used in computers. (4 marks)
- (e) Polly was required to adjust the clock of a computer. Outline three methods that she could have used. (3 marks)
- (f) High level formatting for storage disks is normally done by users. Outline five functions played by this type of formatting. (5 marks)

## QUESTION THREE

- a) Differentiate between safe mode and normal start-up modes as used with computers. (4 marks)
- b) Doreen was required to identify different application software used in her company. List four examples of software that she could have identified.
- d) Outline five safety measures that could be used to protect information stored in computers. (5 marks)
- e) Explain three circumstances under which an organization should consider conducting an urgent computer maintenance exercise for its computers. (6 marks)

#### QUESTION FOUR

(a) Nelson inserted a flash disk in a computer to print out a stored document but the error message 'USB not recognized' appeared on the screen of his computer.

i. Explain the cause of the error message. (2 marks)

ii. Explain two precautions he needs to take with such an error to safeguard his data. (4 marks)

a) Loise installed a computer game program that she borrowed from her friend but after one week she noted that her computer was hacked.

i) Identify this type of attack. (1 mark)

ii) Explain two strategies that she could use as a remedy for the attack. (4 marks)

b) Ruth used attended software installation method to install an operating system on her computer. Outline four advantages that could have influenced her to use this method.

(4 marks)

c) A motherboard uses firmware on the BIOS chip.

(i) Outline three functions of this firmware. (3 marks)

(ii) Explain two strategies that could be used to maintain performance of the firmware. (2marks)

#### QUESTION FIVE

a. Alice was required to describe computer troubleshooting methods in a job interview.

Outline four methods that she could have mentioned. (10 marks)

b. Figure 2 shows a part of a motherboard. Outline the function of each of the parts labeled (i) and (ii). (10 marks)

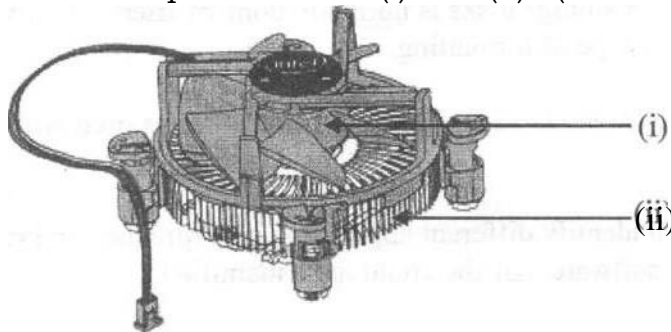


Figure 2