



**L-Università
ta' Malta**

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2026 MAIN SESSION**

SUBJECT:	Information Technology
PAPER NUMBER:	Controlled – Unit 1
DATE:	15 th May 2024
TIME:	10:00 a.m. to 11:35 a.m.

**THIS PAPER SHOULD BE RETURNED TO THE INVIGILATOR
AFTER THE EXAMINATION.**

Name of candidate _____

I.D. number _____

School _____

Class _____

Answer **ALL** questions in the space provided.

Scenario



- Joe has just taken over the management of a computer shop.
- Apart from selling computer hardware and software, the shop also provides technician services.

Question 1

K-1 (4 marks)

Whilst at the servicing centre, Joe noted a few hazards.

a) Identify the **TWO** hazards shown in the images below.

	Image	Hazard
i.	 <p>(Source: https://www.shutterstock.com)</p>	<hr/> <p style="text-align: right;">(0.5)</p>
ii.	 <p>(Source: https://www.shutterstock.com)</p>	<hr/> <p style="text-align: right;">(0.5)</p>

b) List **ONE** risk for each hazard identified in Question 1a.

Risk from Hazard 1: _____ (0.5)

Risk from Hazard 2: _____ (0.5)

c) Outline **ONE** possible precaution which might be taken to minimise each of the risks listed in Question 1b.

Precaution for Risk 1: _____

_____ (1)

Precaution for Risk 2: _____

_____ (1)

Question 2

K-3 (4 marks)

- Rita, who is an architect, visited the computer shop.
- As an architect, Rita creates drawings and designs of buildings before construction starts.
- She is considering buying a new computer system and devices to help her in her work.

a) List **FOUR** different types of computer systems, except for laptop, tablet, desktop computer and gaming rig.

Computer System 1: _____ (0.25)

Computer System 2: _____ (0.25)

Computer System 3: _____ (0.25)

Computer System 4: _____ (0.25)

b) From the box below, select an appropriate input and output device to be used by Rita while carrying out her work as an architect.

Joystick, Speakers, Graphics Tablet, Dedicated Sensors, Eye-Tracking System, Plotter, Barcode Reader

Input Device: _____ (0.5)

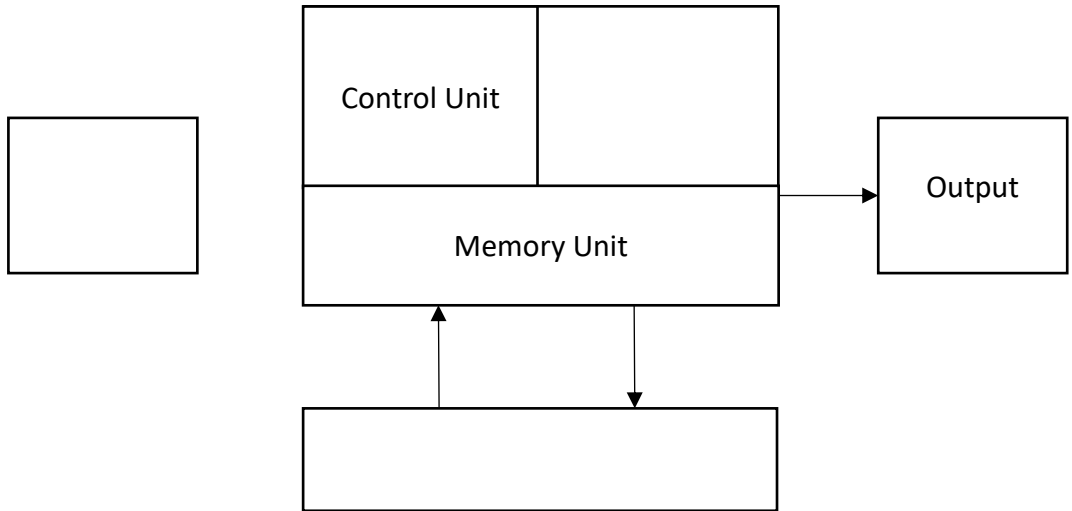
Output Device: _____ (0.5)

This question continues on next page.

c) Rita would like to better understand how computer devices work.

Complete the following data flow diagram by:

- i. filling in the empty blocks, using appropriate words,
- ii. drawing the missing arrows which show the flow of data.



(2)

Question 3

C-2 (6 marks)

- a) • While at the computer shop, Rita had a look at the tablets section.
- She wants a tablet to take notes and draw simple sketches on when carrying out site visits.
- For Rita, it is important that the tablet is easy to carry around.
- She is thinking of buying one of the tablets shown in Table 1.

Table 1: Tablets Specifications

	Tablet A	Tablet B
Memory	4 GB	12 GB
Storage	128 GB	256 GB
CPU Speed	2 GHz	3 GHz
Screen size	10.6"	14.6"
Wi-Fi	Yes	Yes

Justify why Tablet A, rather than Tablet B, should be bought in terms of portability and speed:

Justification in terms of portability: _____

_____ (1)

Justification in terms of speed: _____

 _____ (1)

- b) • Rita’s son likes to play all sorts of games on his laptop.
 - He also enjoys relaxing in the countryside while listening to music on his smartphone.
 - She would like to buy him a joypad and a pair of headphones for his birthday.
 - Rita does not want to spend a lot of money on these.
 - She is considering the joypads in Table 2 and the headphones in Table 3.
- i. Justify why Rita should buy Joypad A, rather than Joypad B, in terms of cost and after-sales service.

Table 2: Joypads Specifications

	Joypad A	Joypad B
Wireless	No	Yes
Connectivity	USB	Bluetooth
Cost	€60	€95
Warranty	1 year	6 months

Justification in terms of cost: _____

 _____ (0.5)

Justification in terms of after-sales service: _____

 _____ (0.5)

This question continues on next page.

ii. Justify why Headphones A, rather than Headphones B, should be bought in terms of specifications and connectivity.

Table 3: Headphones Specifications

	Headphones A	Headphones B
Microphone	Yes	No
Noise Cancelling	Yes	No
Connectivity	Bluetooth	USB

Justification in terms of specifications: _____

 _____ (0.5)

Justification in terms of connectivity: _____

 _____ (0.5)

- c) • Being an architect, it is very important for Rita to keep backups of her work.
 • Due to the nature of her work, Rita is often required to work at different locations.
 • The salesperson suggested an external Solid-State Drive (SSD) rather than an external Hard Disk.

Justify why an external Solid-State Drive (SSD) is more appropriate than an external Hard Disk in terms of storage technology and longevity.

Justification in terms of storage technology: _____

 _____ (1)

Justification in terms of longevity: _____

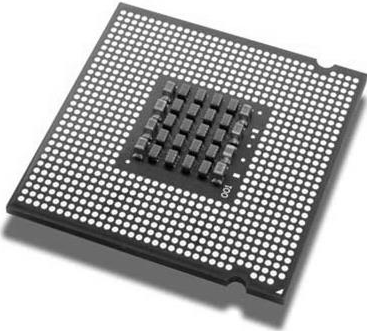
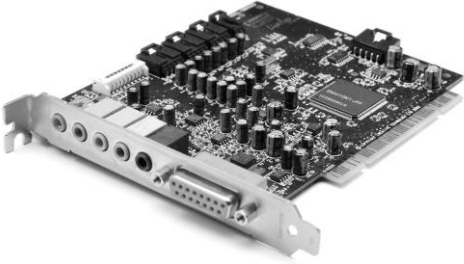
 _____ (1)

Question 4

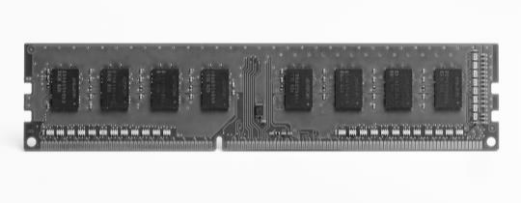

K-4 (4 marks)

- Another client, Peter, visited the computer shop.
- Lately, he changed jobs and would like to upgrade his desktop computer to cater for his new requirements.

a) Label the following **FOUR** internal components.

	Image	Internal Hardware Component Name
i.	 <p>(Source: https://www.indiamart.com)</p>	<p>_____</p> <p>(0.25)</p>
ii.	 <p>(Source: https://www.shutterstock.com)</p>	<p>_____</p> <p>(0.25)</p>

This question continues on next page.

	Image	Internal Hardware Component Name
iii.	 <p>(Source: https://www.shutterstock.com)</p>	<hr/> <p>(0.25)</p>
iv.	 <p>(Source: https://www.startech.com)</p>	<hr/> <p>(0.25)</p>

b) Apart from user requirements, list **TWO** other reasons for which a computer upgrade may be required.

Reason 1: _____
 _____ (0.5)

Reason 2: _____
 _____ (0.5)

c) Outline **TWO** implications of upgrading a computer system, except for hardware compatibility problems.

Implication 1: _____

 _____ (1)

Implication 2: _____

 _____ (1)

Question 5

K-6 (4 marks)

The upgrade on Peter’s computer did not go as expected.

a) List **TWO** issues which can cause the hardware installation to be unsuccessful.

Issue 1: _____ (0.5)

Issue 2: _____ (0.5)

b) State **ONE** way which can be used to confirm each issue listed in Question 5a.

Way to confirm issue 1: _____
_____ (0.5)

Way to confirm issue 2: _____
_____ (0.5)

c) Outline **ONE** possible solution to solve each of the **TWO** issues listed in Question 5a.

Possible solution for issue 1: _____

_____ (1)

Possible solution for issue 2: _____

_____ (1)

Question 6

K-8 (4 marks)

Following every upgrade or installation, technicians are required to write the respective documentation before handing the computer system back to the client.

a) Apart from ‘Actual Implementation’ and ‘Testing’, name **TWO** sections which form part of a Replacement/Installation/Upgrade (RIU) documentation.

Section 1: _____ (0.5)

Section 2: _____ (0.5)

This question continues on next page.

b) Outline the content of the following **TWO** sections of a Replacement/Installation/Upgrade (RIU) documentation.

Actual Implementation: _____

_____ (0.5)

Testing: _____

_____ (0.5)

c) Describe **TWO** reasons why it is important to document the Replacement/ Installation/Upgrade (RIU) of computer hardware, apart from recording that the test plan has been completed.

_____ (2)

Question 7

K-9 (4 marks)

- A new graphics card was installed on Peter’s desktop computer.
- The technician made sure to register this component.

a) Define the term ‘product registration’.

(1)

b) Identify **TWO** methods used for registering products from the ones provided below:

via a voice message	by post	via SMS	online
---------------------	---------	---------	--------

Method 1: _____ (0.5)

Method 2: _____ (0.5)

c) One advantage of product registration is proof of purchase. List **FOUR** other advantages of product registration.

Advantage 1: _____
_____ (0.5)

Advantage 2: _____
_____ (0.5)

Advantage 3: _____
_____ (0.5)

Advantage 4: _____
_____ (0.5)

Please turn the page.

Question 8

K-10 (4 marks)

Joe emphasises the importance of carrying out computer maintenance with both technicians and clients.

a) State **TWO** reasons why computer maintenance is important.

Reason 1: _____
_____ (0.5)

Reason 2: _____
_____ (0.5)

b) List **TWO** types of computer maintenance, apart from perfective and adaptive maintenance.

Type of maintenance 1: _____ (0.5)

Type of maintenance 2: _____ (0.5)

c) Define perfective and adaptive computer maintenance.

Definition of perfective computer maintenance:

_____ (1)

Definition of adaptive computer maintenance:

_____ (1)

Question 9

C-5 (6 marks)

Different types of computer maintenance are carried out on computer systems depending on the situation.

a) Scenario 1:

Joe wants to avoid the issue of having the computers in the shop overheat.

i. Identify the appropriate type of computer maintenance for this scenario.

_____ (1)

ii. Justify why you chose this type of computer maintenance.

_____ (1)

iii. Explain the approach required to carry out this computer maintenance.

_____ (1)

b) Scenario 2:

The RAM on the cashier’s computer has stopped working.

i. Identify the appropriate type of computer maintenance for this scenario.

_____ (1)

This question continues on next page.

ii. Justify why you chose this type of computer maintenance.

(1)

iii. Explain the approach required to carry out this computer maintenance.

(1)

Blank Page

Blank Page