L-Università ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2023 MAIN SESSION**

SUBJECT:	**Information Technology**
PAPER NUMBER:	Controlled – Unit 1
DATE:	14th May 2021
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

- RBC is a software development company.
- The number of RBC's customers is continuously increasing.

Question 1   **K-1 (4 marks)**

Health and Safety is very important at RBC. The company tries to reduce hazards in the working environment.

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

	Image	Hazard
i.	 *(Source: https://www.tech4law.co.za/)*	_____ (0.25)
ii.	 *(Source: https://bipolarfreaks.wordpress.com/)*	_____ (0.25)

iii.	*(Source: https://www.psaoc.org)*	_____ (0.25)
iv.	*(Source: https://www.chalkbeat.org)*	_____ (0.25)

b) List **FOUR** risks which might arise from the hazards mentioned in part a.

Risk from Hazard 1: _____ (0.25)

Risk from Hazard 2: _____ (0.25)

Risk from Hazard 3: _____ (0.25)

Risk from Hazard 4: _____ (0.25)

This question continues on next page.

c) Outline **FOUR** possible precautions which might be taken to minimise the risks mentioned in part b.

Precaution for Risk 1: _____

_____

_____ (0.5)

Precaution for Risk 2: _____

_____

_____ (0.5)

Precaution for Risk 3: _____

_____

_____ (0.5)

Precaution for Risk 4: _____

_____

_____ (0.5)

Question 2   **K-3 (4 marks)**

RBC is considering buying new computer systems.

a) List **FOUR** different types of computer systems, except for tablets.

Computer System 1: _____(0.25)

Computer System 2: _____(0.25)

Computer System 3: _____ (0.25)

Computer System 4: _____ (0.25)

b) RBC, designs and creates leaflets to promote the software it develops. From the box below, select an appropriate input and output device for the company.
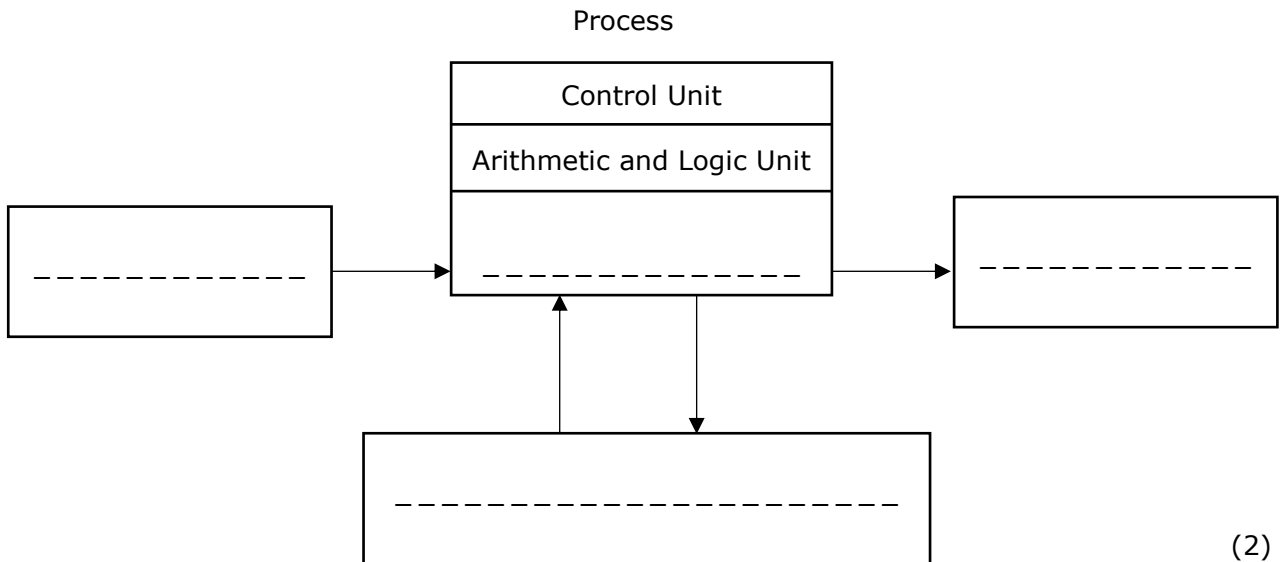
Touchpad, Headphones, Graphics Tablet, Braille Keyboard, Optical Mark Reader, Plotter, 2D-printer, VR Headset

Input Device: _____ (0.5)

Output Device: _____ (0.5)

c) An employee needs to present how data flows in a computer system.

Complete the following data flow diagram by filling in the missing words indicated by the dashed lines:

Process

| Control Unit |
| Arithmetic and Logic Unit |
| _____ |

_____ →

→ _____

_____

(2)

Question 3   **C-2 (6 marks)**

a)
- The owner of RBC decided to give a tablet to each employee.
- This will be used for meetings outside of the office.
- It will be used for basic applications such as note taking and sending emails.
- The tablets shown in Table 1 were considered.

Table 1: Tablet Specifications

	Tablet A	Tablet B
Screen size	10"	15"
Processor	Intel Pentium 4415Y	Intel Core i7-8650U
Processor speed	1.6GHz	1.9GHz

Justify why Tablet A was chosen instead of Tablet B in terms of portability and speed:

i. Portability: _____

_____

_____ (1)

ii. Speed: _____

_____

_____ (1)

b) The company aims to keep digital copies of all its documents. It will also organise conferences. A scanner and a projector were bought.

Justify, in terms of use, how these **TWO** devices can help the employees.

i. Justification of scanner in terms of use: _____

_____

_____

_____ (1)

ii. Justification of projector in terms of use: _____

_____

_____

_____ (1)

c)
- The company has been backing up data on magnetic tapes.
- One of the employees pointed out that Hard Disk Drives would be more effective for data backups.

Justify why Hard Disk Drives are more appropriate than magnetic tapes in terms of access speed and storage capacity.

_____

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_____

_____ (2)

Please turn the page.

Question 4   **K-4 (4 marks)**

The owner of RBC decided that some computer systems need an upgrade.

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

Image	Internal Hardware Component Name
(Source: www.shutterstock.com)	_____ (0.25)
(Source: www.shutterstock.com)	_____ (0.25)
(Source: https://www.cpumedics.com)	_____ (0.25)
(Source: https://www.currys.co.uk)	_____ (0.25)

b) List **TWO** reasons why a computer upgrade may be required.

Reason 1: _____

_____ (0.5)

Reason 2: _____

_____ (0.5)

c) Outline **TWO** implications related to computer upgrades.

_____

_____

_____

_____

_____

_____

_____

_____ (2)

Question 5   **K-8 (4 marks)**

After replacing/installing/upgrading internal hardware components, a documentation needs to be written.

a) Name **FOUR** sections which form part of a Replacement/Installation/Upgrade (RIU) documentation.

Section 1: _____ (0.25)

Section 2: _____ (0.25)

Section 3: _____ (0.25)

Section 4: _____ (0.25)

This question continues on next page.

b)   Outline the content of any **TWO** sections mentioned in part a above.

Name of section: _____

Content of section: _____

_____

_____ (0.5)

Name of section: _____

Content of section: _____

_____

_____ (0.5)

c)   One of the managers still needs to be convinced on the importance of documentation. Describe **TWO** reasons why it is important to document the Replacement/Installation/ Upgrade (RIU) of computer hardware.

_____

_____

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_____

_____

_____ (2)

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Question 6   **K-9 (4 marks)**

The employees at RBC are aware about the importance of registering new product.

a) Define the term 'product registration'.

_____

_____

_____

_____ (1)

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

by drawing   online   verbally   by post

Method 1:_____ (0.5)

Method 2:_____ (0.5)

c) List **FOUR** advantages of product registration.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____ (2)

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