



L-Università
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2025 SUPPLEMENTARY SESSION**

SUBJECT: **Information Technology**
 PAPER NUMBER: Synoptic – Unit 1
 DATE: 3rd November 2025
 TIME: 11:30 a.m. to 1:35 p.m.

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

For examiners' use only:

Question	1	2	3	4	5	6	7	8	Total
Score									
Maximum	6	8	12	8	8	8	8	12	70

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

Scenario

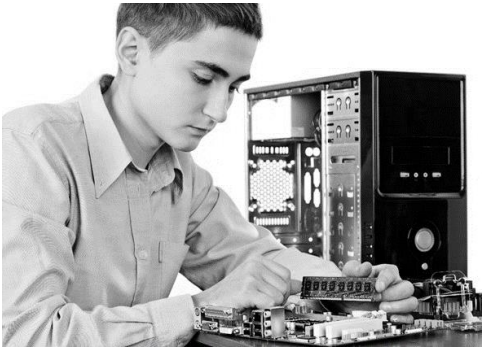

- A local football nursery wants to set up a digital area to help coaches and staff.
- The area will include computers for analysing football game footages and creating training plans.
- The computers will also be used to carry out administrative tasks such as scheduling and communication with parents.
- Alex, a local computer technician, was hired to design and set up the digital area.

Question 1

K-1 (6 marks)

Alex needs to make sure that the digital area is safe to use.

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

	Image	Hazard
i.		<hr/> <p style="text-align: right;">(1)</p>
ii.		<hr/> <p style="text-align: right;">(1)</p>

(Source: <https://www.shutterstock.com>)

b. List **ONE** risk that might arise from each hazard identified in Question 1a.

Risk from hazard (i): _____ (1)

Risk from hazard (ii): _____ (1)

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

Precaution for risk (i): _____

_____ (1)

Precaution for risk (ii): _____

_____ (1)

6

Question 2

K-3 (8 marks)

Alex intends to look up different types of computer systems and peripheral devices.

a. List **FOUR** different types of computer systems, apart from desktop computers.

Computer System 1: _____ (0.5)

Computer System 2: _____ (0.5)

Computer System 3: _____ (0.5)

Computer System 4: _____ (0.5)

b. The football nursery wants to help players get better at making quick decisions and reacting fast by practicing in a virtual world with made-up match situations and training exercises.

Select **ONE** appropriate input and **ONE** appropriate output device for this scenario.

Touchpad	VR Headset	Braille Keyboard	Scanner
Printer	Plotter	Joystick	Optical Mark Reader (OMR)

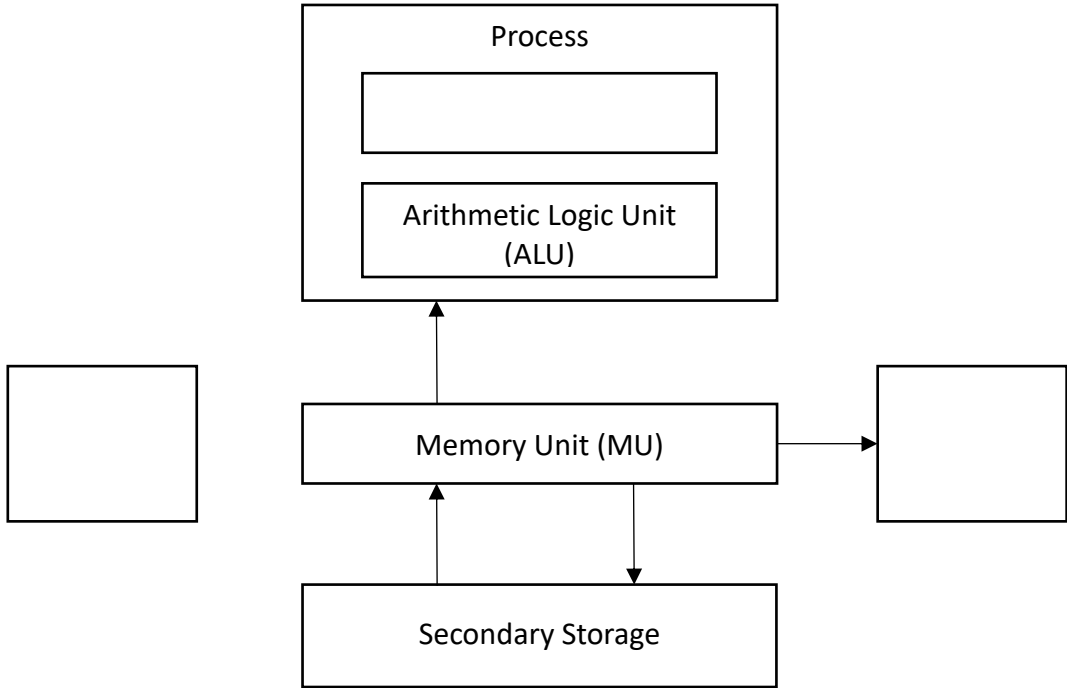
Input Device: _____ (1)

Output Device: _____ (1)

This question continues on next page.

c. Alex needs to explain to the nursery’s management how data flows inside a computer system.

Complete the following data flow diagram by filling in the empty boxes using appropriate words and drawing the missing arrows to show the flow of data.



(4) 8

Question 3

C-3 (12 marks)

- Alex has decided to upgrade the existing desktop computer.
- He intends to increase the computer’s storage capacity to be able to store very long footage from football matches.
- He also wants to allow the computer to connect to other devices wirelessly.
- Table 1 lists the specifications of the desktop computer’s mainboard.

Table 1: Mainboard Specifications

Specifications	
Model name	PRIME A320M-A
Form factor	Micro ATX
Processor socket	AM4
Chipset	AMD A320
Memory type	DDR4

Table 1 (continued)

Memory slots	4 slots
Memory speed	Supports 2133/2400/2666/2933/3200MHz
Maximum memory	64GB
Expansion slots	1x PCIe x16 slot 2x PCIe x1 slots 1x M.2 slot with M key type 2242/2260/2280
SATA connections	6x SATA 6.0Gb/s
USB ports	4x USB 3.2 2x USB 2.0
LAN	Realtek® RTL8111H, 1 x Gigabit LAN Controller(s)
Wireless LAN	None

Adapted from: <https://www.asus.com>

- a. Choose the secondary storage device and network card which are compatible with the given mainboard, and which also meet the nursery’s requirements, by ticking (✓) the box next to the chosen model.

Secondary Storage Device	
i. Transcend MTS800 32GB M.2-2280 SATA Solid State Drive	<input type="checkbox"/>
ii. Samsung 870 EVO 100GB 2.5" SATA Solid State Drive	<input type="checkbox"/>
iii. Crucial P3 Plus 2TB M.2-2280 PCIe 4.0 X4 NVME Solid State Drive	<input type="checkbox"/>

Network Card	
i. TP-Link TL-WN881ND 802.11a/b/g/n PCIe x1 Wi-Fi Adapter	<input type="checkbox"/>
ii. TP-Link TX201 2.5Gb/s Ethernet PCIe x1 Network Adapter	<input type="checkbox"/>
iii. TP-Link TL-WN751ND 802.11a/b/g/n PCI Wi-Fi Adapter	<input type="checkbox"/>

(4)

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Difference 2: _____

_____ (2)

12

Question 4

K-6 (8 marks)

Computer upgrades do not always go as expected.

- a. List **TWO** issues which can cause a RIU (Replacement/Installation/Upgrade) to be unsuccessful.

Issue 1: _____ (1)

Issue 2: _____ (1)

- b. State **ONE** way which can be used to confirm each issue listed in Question 4a.

Way to confirm issue 1: _____

_____ (1)

Way to confirm issue 2: _____

_____ (1)

- c. Outline a different solution to solve each of the **TWO** issues listed in Question 4a.

Possible solution for issue 1: _____

_____ (2)

Possible solution for issue 2: _____

_____ (2)

8

Please turn the page.

Question 5

K-7 (8 marks)

Following every computer RIU, Alex carries out tests on the computer system, making sure it is working as intended.

a. List **TWO** ways which can be used to test a computer RIU.

Way of testing 1: _____ (1)

Way of testing 2: _____ (1)

b. Describe the **TWO** ways of testing listed in Question 5a.

Description of way of testing 1: _____

_____ (1)

Description of way of testing 2: _____

_____ (1)

c. Outline **TWO** examples for each way of testing listed in Question 5a.

Way of testing 1

Example 1: _____

_____ (1)

Example 2: _____

_____ (1)

Way of testing 2

Example 1: _____

_____ (1)

Example 2: _____

_____ (1)

8

Question 6

K-8 (8 marks)

After upgrading the computer, Alex compiled the RIU (Replacement/Installation/Upgrade) documentation.

a. Name **FOUR** sections of an RIU documentation, apart from 'Reason for the RIU'.

- Section 1: _____ (0.5)
- Section 2: _____ (0.5)
- Section 3: _____ (0.5)
- Section 4: _____ (0.5)

b. Outline the content of each of the **FOUR** sections of an RIU documentation you named in Question 6a.

Content of section 1: _____

_____ (0.5)

Content of section 2: _____

_____ (0.5)

Content of section 3: _____

_____ (0.5)

Content of section 4: _____

_____ (0.5)

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c. Describe **TWO** reasons why it is important to document the upgrade of hardware components, apart from using the documentation as a 'reference point for troubleshooting'.

Reason 1: _____

_____ (2)

Reason 2: _____

_____ (2)

8

Question 7

K-10 (8 marks)

Alex ensures that the nursery's computers are regularly maintained.

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

Reason 1: _____
_____ (1)

Reason 2: _____
_____ (1)

b. List **TWO** types of computer maintenance, apart from preventative maintenance.

Type of maintenance 1: _____ (1)

Type of maintenance 2: _____ (1)

c. Define the **TWO** types of computer maintenance you listed in Question 7b.

Type of maintenance 1: _____

_____ (2)

Type of maintenance 2: _____

_____ (2)

8

Question 8

C-5 (12 marks)

At the football nursery, Alex carries out different types of computer maintenance depending on the situation.

a. Scenario 1:

The football nursery’s printer is an old model that uses a parallel port. Alex cannot connect it directly to the computer as it only has USB ports.

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

_____ (2)

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

_____ (2)

This question continues on next page.

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

_____ (2)

b. Scenario 2:

The coaches require a larger monitor so that the entire team can gather and review football matches footage together at the same time.

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

_____ (2)

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

_____ (2)

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

_____ (2)