



L-Università
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2021 SUPPLEMENTARY SESSION**

SUBJECT:	Information Technology
PAPER NUMBER:	Synoptic – Unit 1
DATE:	3 rd November 2021
TIME:	9:00 a.m. to 11:05 a.m.

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

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

Scenario

- 'Modern Press' is a newspaper agency located at Bulebel.
- This agency has a lot of computers and machinery used for publishing and printing materials.
- The owners of Modern Press are very much aware about the regulations which must be followed to ensure the safety of all their employees.

Question 1

K-1 (6 marks)

- The owners of 'Modern Press' frequently visit the factory to inspect the working conditions.
- On one of their visits they found the following work practices which they were unhappy about.

a. Identify the hazards shown in the images below:



(Source: www.lumobodytech.com)

Hazard 1: _____ (1)



Source: www.safetymattingsupplies.co.uk

Hazard 2: _____ (1)

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

Risk arising from hazard 1: _____ (1)

Risk arising from hazard 2: _____ (1)

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

Precaution to minimise risk 1: _____
 _____ (1)

Precaution to minimise risk 2: _____
 _____ (1)

Question 2

K-2 (8 marks)

To reduce the possibility of accidents, the owners of 'Modern Press' were thinking about buying new safety signs. They are still unsure which safety signs to buy.

a. Match each safety sign with their correct meaning by drawing a line between them:



Fire extinguisher



No food or drink



Fire exit



No loose clothing

(2)

This question continues on next page.

b. Categorise the following **FOUR** safety signs, by writing 'X' in the category/categories they belong to.

Safety Signs	Categories		
	Human Hazard	Hardware Hazard	Environmental Hazard
Fire extinguisher			
No food or drink			
Fire exit			
No loose clothing			

(2)

c. The owners of 'Modern Press' need to place some safety signs in their office shown in Figure 1 below.

Determine where the **TWO** safety signs mentioned below should be placed in this office, by indicating their placement in Figure 1.

Safety sign 1: Fire extinguisher (2)

Safety sign 2: Fire exit (2)



Figure 1: 'Modern Press' office
 Source: <https://www.vectorstock.com>

Question 3

C-1 (12 marks)

Some of the hardware components found at 'Modern Press' need to be replaced. The owners are aware that precautions must be taken prior to such a replacement.

- a. Outline **FOUR** consequences which can occur if the necessary precautions are not taken when hardware components are replaced, installed or upgraded:

Consequence 1: _____
_____ (1)

Consequence 2: _____
_____ (1)

Consequence 3: _____
_____ (1)

Consequence 4: _____
_____ (1)

- b. Determine **FOUR** costs which can be incurred if good practices are not followed during replacement, installation or upgrade of hardware.

Cost 1: _____
_____ (1)

Cost 2: _____
_____ (1)

Cost 3: _____
_____ (1)

Cost 4: _____
_____ (1)

- c. Analyse the cost of implementing **FOUR** precautions when compared to the cost of the hazard which would otherwise result.

(4)

Question 4

K-3 (8 marks)

Some of the employees of 'Modern Press' suggested using new computer systems.

a. List **TWO** different types of computer systems:

Computer System 1: _____ (1)

Computer System 2: _____ (1)

b. 'Modern Press' needs to buy input and output devices for its journalists. From the box below, select an appropriate input and output device for the company.

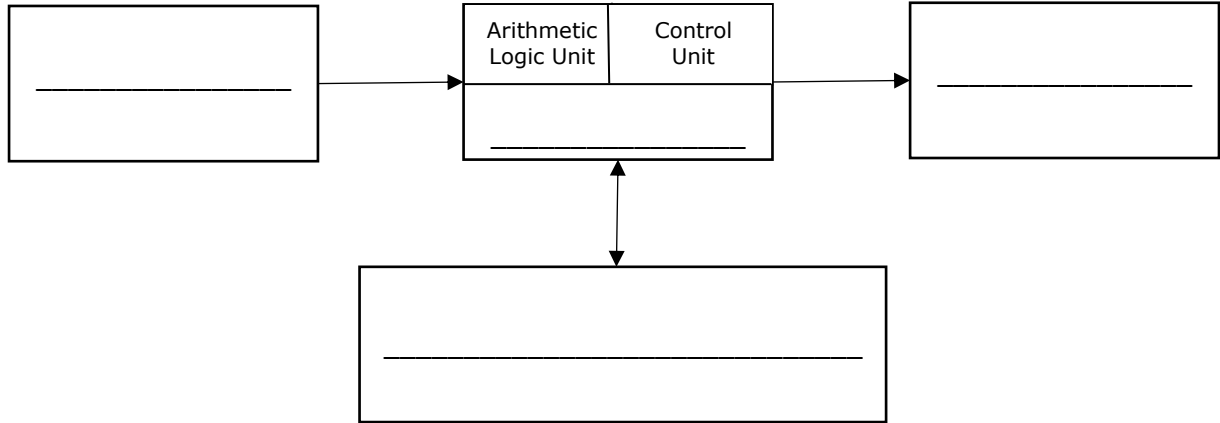
Keyboard	Magnetic Ink Character Reader (MICR)	Bar Code Reader
	Plotter	Monitor
		VR Headset

Input Device: _____ (1)

Output Device: _____ (1)

- c. The owners of 'Modern Press' want to understand better how information flows when a computer system is utilised.

Complete the following data flow diagram by labelling the boxes using appropriate words.



(4)

Please turn the page.

Question 5

K-4 (8 marks)

a. Some of the employees are interested in the internal parts of the computer system. Label the following **TWO** internal hardware components to help them.

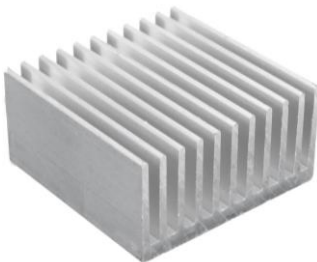
i.



_____ (1)

Source: <https://www.bestbuy.com>

ii.



_____ (1)

Source: <https://www.indiamart.com>

b. The managers at 'Modern Press' are aware that upgrades are essential when dealing with computer systems. List **FOUR** reasons why a computer upgrade may be required.

Reason 1: _____
_____ (0.5)

Reason 2: _____
_____ (0.5)

Reason 3: _____
_____ (0.5)

Reason 4: _____
_____ (0.5)

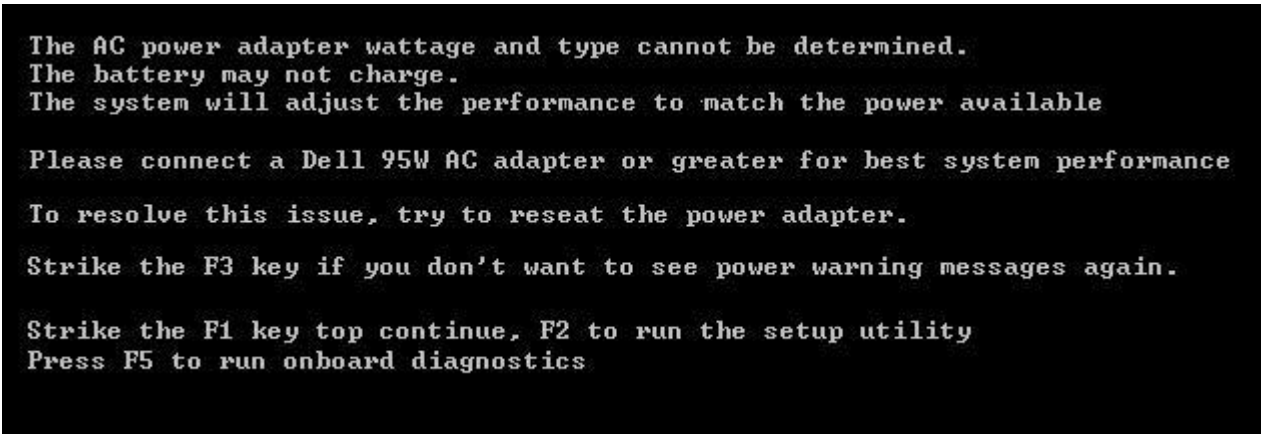
c. Outline **FOUR** implications of a computer upgrade.

(4)

Question 6

C-4 (12 marks)

- An employee tried booting up one of the laptops.
- However, he kept getting the error displayed in the figure below.



a. Identify the hardware problem which has generated the above boot-up error?

(4)

This question continues on next page.

b. Describe **TWO** possible causes which might have caused the above error.

Possible cause 1: _____

_____ (2)

Possible cause 2: _____

_____ (2)

c. Explain **TWO** possible solutions which might help solve the generated boot-up error.

_____ (4)

Question 7

K-8 (8 marks)

When considering possible updates which might be required, the owners of 'Modern Press' also kept in mind the importance of an RIU (Replace/Install/Upgrade) documentation.

a. Name **FOUR** sections which form part of an RIU Documentation:

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

b. Outline the content of any **TWO** sections mentioned in Question 7a.

Section: _____
Content: _____

_____ (1)

Section: _____

Content: _____

_____ (1)

c. Not all employees at 'Modern Press' understand the importance of having an RIU documentation.

Describe **FOUR** reasons why it is important to document RIU.

_____ (4)

Please turn the page.

Question 8

K-9 (8 marks)

One of the employees at 'Modern Press' said that each new product purchased by the company should be registered.

a. Define the term 'product registration'.

_____ (2)

b. Identify **TWO** methods which can be used to register a product.

by calling	by post	online	by painting
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i. _____ (1)

ii. _____ (1)

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

_____ (4)