



**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 3
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

- SmileMore is an insurance company owned by Mr Borg.
- A number of employees work in the company.

Question 1

(8 marks)

The image below shows SmileMore offices. A number of hazards can be seen.



Source: <https://youngworkers.org>

Identify **FOUR** good health and safety practices which should be followed, but are **not**, in the image above.

Health and Safety practice 1:

(2)

Health and Safety practice 2:

(2)

Health and Safety practice 3:

(2)

Health and Safety practice 4:

(2)

Question 2**(6 marks)**

One of Mr Borg's employees suggested a computer upgrade, as the computer is old.

State **SIX** reasons why a computer upgrade might be required.

Reason 1: _____
_____ (1)

Reason 2: _____
_____ (1)

Reason 3: _____
_____ (1)

Reason 4: _____
_____ (1)

Reason 5: _____
_____ (1)

Reason 6: _____
_____ (1)

Question 3**(12 marks)**

Mr Borg is aware that upgrades can have various implications.

Mention and describe **FOUR** implications which can be induced when the computer system is upgraded with modern hardware and software.

Implication 1: _____ (1)

Description of implication 1: _____

_____ (2)

This question continues on next page.

Implication 2: _____ (1)

Description of implication 2: _____

_____ (2)

Implication 3: _____ (1)

Description of implication 3: _____

_____ (2)

Implication 4: _____ (1)

Description of implication 4: _____

_____ (2)

Question 4

(9 marks)

Mr Borg is also worried about the risks involved when carrying out an upgrade.

Mention and describe **THREE** possible risks which might be encountered when hardware components are upgraded or replaced.

Risk 1: _____ (1)

Description: _____

_____ (2)

Risk 2: _____ (1)

Description: _____

_____ (2)

Risk 3: _____ (1)

Description: _____

_____ (2)

Question 5**(6 marks)**

Mention and discuss **ONE** precaution which can be taken to avoid **EACH** risk mentioned in Question 4.

Precaution taken to reduce Risk 1: _____ (0.5)

Discussion: _____

_____ (1.5)

Precaution taken to reduce Risk 2: _____ (0.5)

Discussion: _____

_____ (1.5)

Precaution taken to reduce Risk 3: _____ (0.5)

Discussion: _____

_____ (1.5)

Please turn the page.

Question 6**(8 marks)**

Mr Borg is now convinced that an upgrade would be useful, however certain procedures should be taken into consideration to ensure health and safety.

In the "Correct?" column, put a [✓] next to the good working procedures and a [✗] next to the bad working procedures.

Procedure	Correct?
Identify the problem and think of a possible solution.	
Compatibility should not be checked.	
Data backups are not required.	
The computer can be left as it is, as there is no need to clean it up.	
Install components in the correct order.	
There is no need to test the computer system.	
Restore data and install the necessary software.	
Set up a system restore point.	

Question 7**(16 marks)**

- As part of the computer upgrade, Mr Borg decided to install:
 - a new sound card
 - an additional RAM module
 - a second hard disk drive
 - a new optical disk drive.
- Tests need to be carried out to ensure functionality.

For each hardware component, outline **TWO** tests which can be conducted to ensure that these hardware components were correctly installed.

a. Sound Card

Test 1: _____
 _____ (2)

Test 2: _____
 _____ (2)

b. RAM

Test 1: _____
_____ (2)

Test 2: _____
_____ (2)

c. Hard Disk Drive

Test 1: _____
_____ (2)

Test 2: _____
_____ (2)

d. Optical Disk Drive

Test 1: _____
_____ (2)

Test 2: _____
_____ (2)

Question 8

(12 marks)

While testing the upgraded computer system, it was noted that the computer did not have a network connection even though the Ethernet cable was connected to the network setup.

Explain a plan consisting of **SIX** actions which can be followed to pinpoint this system fault.

Action 1: _____

_____ (2)

This question continues on next page.

Action 2: _____

_____ (2)

Action 3: _____

_____ (2)

Action 4: _____

_____ (2)

Action 5: _____

_____ (2)

Action 6: _____

_____ (2)

Question 9**(14 marks)**

A computer hardware installation or upgrade should always be documented.

Name the **FIVE** sections which should be present in such documentation and outline what should be found in each.

Section 1: _____ (0.8)

Outline: _____

_____ (2)

Section 2: _____ (0.8)

Outline: _____

_____ (2)

Section 3: _____ (0.8)

Outline: _____

_____ (2)

Section 4: _____ (0.8)

Outline: _____

_____ (2)

Section 5: _____ (0.8)

Outline: _____

_____ (2)

Please turn the page.

Question 10**(9 marks)**

Mr Borg wondered why it is necessary to document the hardware installation process.

Mention and describe **FOUR** reasons why documentation is important.

Reason 1: _____ (0.75)

Description: _____

_____ (1.5)

Reason 2: _____ (0.75)

Description: _____

_____ (1.5)

Reason 3: _____ (0.75)

Description: _____

_____ (1.5)

Reason 4: _____ (0.75)

Description: _____

_____ (1.5)

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