



**L-Università  
ta' Malta**

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE  
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL  
2018 MAIN SESSION**

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SUBJECT:	<b>Information Technology</b>
PAPER NUMBER:	Controlled – Unit 3
DATE:	11 <sup>th</sup> April 2018
TIME:	10:00 a.m. to 11:35 a.m.

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**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**

You have just been employed as an IT technician at a local law firm. You notice that the computers being used are all rather old and would benefit from an upgrade.

**Question 1**

**K1 (4 marks)**

You thought of a number of upgrades that would be beneficial, however the business owner cannot understand what they are for. For each of the upgrades listed below, write down the reason for the upgrade:

a. an additional internal HD of 2TB;

\_\_\_\_\_  
\_\_\_\_\_ (1)

b. the purchase of an Uninterrupted Power Supply (UPS) for each PC;

\_\_\_\_\_  
\_\_\_\_\_ (1)

c. change of CPU from Intel Core i3 to Intel Core i5;

\_\_\_\_\_  
\_\_\_\_\_ (1)

d. an additional 4GB of RAM.

\_\_\_\_\_  
\_\_\_\_\_ (1)

**Question 2**

**C1 (6 marks)**

a. You have been asked to describe what are the implications, that are induced by the upgrading of the computers in relation to:

i. hardware compatibility;

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (1)

ii. decommissioning of hardware;

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(1)

iii. migration of data;

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(1)

iv. software compatibility.

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(1)

b. Pick any **TWO** of the implications described in question 2a and provide a practical example for **EACH**.

Implication Chosen: \_\_\_\_\_

Practical Example:

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(1)

Implication Chosen: \_\_\_\_\_

Practical Example:

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(1)

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**Question 3**

**K3 (4 marks)**

Describe **TWO** risks involved when upgrading hardware components. For each risk mentioned, provide an example of how it can happen.

Risk 1:

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(1)

Example for Risk 1:

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(1)

Risk 2:

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(1)

Example for Risk 2:

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(1)

**Question 4**

**C2 (6 marks)**

The business owner would like you to start the upgrades straight away, however you first need to highlight the importance of taking precautions before the upgrades can occur.

For **EACH** of the precautions listed below, discuss how it helps mitigate the risks:

a. use of anti-static equipment;

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(1)

b. use of appropriate tools;

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(1)

c. handling equipment with care;

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(1)

d. perform backups before starting an upgrade;

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(1)

e. use of data recovery tools;

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(1)

f. wear appropriate clothing.

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(1)

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**Question 5**

**K5 (4 marks)**

Your colleague will be helping you with the office computers upgrade. In order to ensure that the work is done properly you decide to write a list of working procedures to follow and attach it to the wall.

Outline **EIGHT** correct working procedures that must be followed during the upgrade of the computers.

Working procedure 1: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 2: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 3: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 4: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 5: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 6: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 7: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

Working procedure 8: \_\_\_\_\_  
\_\_\_\_\_ (0.5)

**Question 6**

**K8 (4 marks)**

You have just finished installing the upgrades, however not everything is working well. Read the errors listed below and identify **TWO** possible issues for each error.

a. The monitor connected to the new graphics card is showing a 'No signal' error.

i. Possible issue 1:

\_\_\_\_\_  
\_\_\_\_\_ (1)

ii. Possible issue 2:

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(1)

b. One of the computers is not doing anything upon the press of the power button.

i. Possible issue 1:

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(1)

ii. Possible issue 2:

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(1)

**Question 7**

**K10 (4 marks)**

Following the upgrade someone has complained that a number of products are asking for registration. In order to show why registration is important, use the table below and list **FOUR** advantages that are associated with registering products.

	<b>Advantages</b>
a.	(1)
b.	(1)
c.	(1)
d.	(1)

***Please turn the page.***

**Question 8**

**C5 (6 marks)**

During the upgrade process you have kept a logbook detailing the type of maintenance carried out. Help the owner understand the different types of maintenance by providing **THREE** practical measures for each type of maintenance described below.

- a. Explain **THREE preventive** maintenance measures that can be applied to ensure the smooth running of the computers.

Measure 1:

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(1)

Measure 2:

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(1)

Measure 3:

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(1)

The computers had not been upgraded for several years before you were employed. Explain **THREE adaptive** maintenance measure that can be taken to ensure that old files and peripherals can still be used with the new system.

Measure 1:

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(1)

Measure 2:

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(1)

Measure 3:

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(1)