MATRICULATION AND SECONDARY EDUCATION CERTIFICATE EXAMINATIONS BOARD
UNIVERSITY OF MALTA, MSIDA

SECONDARY EDUCATION CERTIFICATE LEVEL

MAY 2015

SUBJECT:	**Information Technology**
PAPER NUMBER:	Controlled Assessment – Unit 1
DATE:	25th May 2015
TIME:	10:00 a.m. to 12:00 noon

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

Name of candidate _____

I.D. number _____

School _____

Class _____

Notes to Students:

- Answer all questions.
- Please answer Section A in the space provided.
- Section A is to be completed in 90 minutes.
- Section B is a practical task to be carried out under supervision in the computer lab.
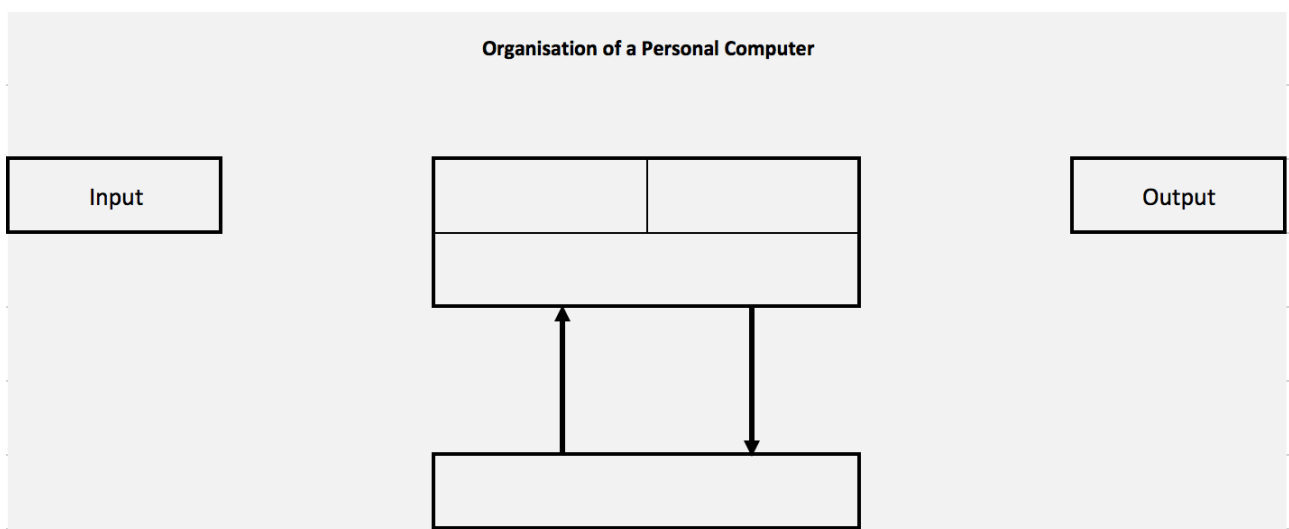- Section B is to be completed in 30 minutes.

Section A
Please answer the questions in the space provided.

Since the start of November, you have been a member of an association for computer enthusiasts called the Malta Computer Club. This club brings together computer enthusiasts from all over Malta and Gozo. The aim of this computer club is to improve the standard of computer literacy in the Maltese islands. As part of its fund raising initiative the computer club runs a computer shop as well as a number of monthly competitions for its members.

As part of your membership to the club you have been asked to work as a sales assistant in the club's computer store. Also, since becoming a member of this computer club, a number of your friends have also approached you in order to help them with the issues that they are having with their computers.

1. [K3] The Malta Computer Club is running a competition whereby participants are required to fill in the diagram shown below. The diagram should represent the internal structure of a personal computer system. In order to participate you have to: *[4 marks]*

    a. Fill in all the blocks in the diagram with the appropriate words that describe each block.
    b. Draw arrows between the blocks to show how the data flows between the various blocks.

Organisation of a Personal Computer

| Input | | | | Output |

2. [K5] The following is a list of the peripheral devices available at the computer store, where you work as a computer sales representative. According to your expertise, which is the appropriate peripheral device for each customer? *[4 marks]*

Webcam, image scanner, graphics tablet, game controller, barcode reader, printer, video projector, headphones, speakers, plotter, flash drive

a. Simone would like to video call his friends who are studying abroad.

Peripheral device: _____

b. Peter likes to play games, but the sound disturbs the rest of his family. Which peripheral will you recommend so that can he still play games and enjoy the sound, whilst not disturbing his family?

Peripheral device: _____

c. Daniela needs to store her homework on a portable device, so that she can show the homework to her teacher during the IT class.

Peripheral device: _____

d. Philip has a collection of old printed photos that he needs to convert into digital images.

Peripheral device: _____

3. [K6] Andrew is not familiar with terms used in networks and he cannot follow the manual to setup his home network. Help Andrew to follow the manual and setup his network by listing the correct networking terms below. *[4 marks]*

a. State **two** types of networks: _____ , _____.

b. State **two** network topologies:_____ , _____.

c. State **two** types of network cables:_____ , _____.

d. State **two** types of wireless communication:_____ , _____.

Please turn the page.

4. [K7] You have just formatted and installed Microsoft Windows 7 on a friend's computer. Your friend asked you to create **four** different accounts in order to allow him to do the following tasks. For each task you are to specify which local user group is to be used. *[4 marks]*

   a. An account that enables the overall management of the computer, including the installation and removal of any software.

      Local account group:_____

   b. An account for his sister so that she can make basic personalisation to her account but not have the rights to change most computer settings and deleting important files.

      Local account group:_____

   c. An account to allow relatives and friends who would like to use the computer on a temporary basis.

      Local account group:_____

   d. An account that has full access to other user accounts on the computer.

      Local account group: _____

5. [K9] Since Microsoft Windows XP, computers have come equipped with a firewall. Unfortunately a recent survey has revealed that only 34% of the computer users know about the firewall. Help answer the following questions for a local IT magazine so that their readers can be informed about firewalls. *[4 marks]*

   a. Name **four** features of a firewall.

      _____

      _____

      _____

      _____

   b. List **three** dangerous things that can happen if there is no firewall protection.

      _____

      _____

      _____

      _____
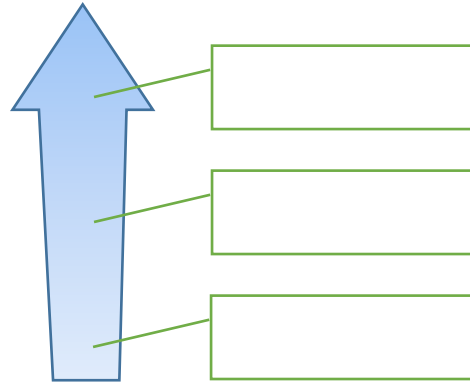
c. Give **one** limitation of firewalls.

_____

_____

_____

_____

6. [K1] As a computer representative you are asked by a client to indicate the main differences between the following systems. *[2 marks]*

	Place a tick near the system which you think is the least expensive	**Place a tick near the system you think is the most expensive**	**Place a tick near the system you think is the fastest**	**Place a tick near the system you think is the slowest**
Server	◯	◯	◯	◯
Personal Computer	◯	◯	◯	◯
Laptop	◯	◯	◯	◯
Supercomputer	◯	◯	◯	◯
Mainframe	◯	◯	◯	◯

Please turn the page.

7. [K1, C1] A local computer store has a display showing *desktop computers*, *servers* and *tablets.*

[8 marks]

a. Put the **three** systems in order, according to their size; starting with the smallest at the bottom.

b. Explain by writing down in detail **two** typical uses for a desktop computer.

Use 1: _____

Use 2: _____

c. Explain by writing down in detail **two** typical uses for a tablet.

Use 1: _____

Use 2: _____

d. Explain by writing down in detail **two** typical uses for a server.

Use 1: _____

Use 2: _____

SEC39/c1.17m

Section B
This is a practical task that needs to be completed under supervision in the computer lab.

8. [A3] You are asked to demonstrate your knowledge in basic network computer sharing by completing the following tasks. You have been provided with two computers, running Windows 7. The computers are not making use of Homegroup and they have been set up to be on the same workgroup. *[10 marks]*

> *Note 1: The username / password for PC1 are martin / nitram*
> *Note 2: The username / password for PC2 are peter / retep*

   a. You have one USB printer connected and installed to PC1. Your task is to share the printer and add it to PC2 so as to enable both computers to print from the same printer.

   b. Instead of sharing a flash drive from one PC to another, you decided to create shared folders with appropriate permissions using the following structure. Complete the following to create your shared folders:

      i. Create **two** folders on PC1. Name one of the folders "**public**" and the other "**private**".
      ii. Share the folder "**public**" and apply appropriate permissions so that clients can read and write from this folder.
      iii. Share the folder "**private"** and apply appropriate permissions so that clients can only read from this folder.
      iv. Add both shared folders to PC2.

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