**Homework 6: Storage devices**

1. (a) What does ROM stand for? [1]

Read Only Memory

(b) State one item of software that would need to be stored in ROM and give a reason for your choice. [2]

Bootstrapper because it needs to be permanently in memory, if it isn’t there then nothing is there to load the operating system when the computer is turned on.

(c) What does RAM stand for? [1]

Random Access Memory

(d) Describe briefly **two** uses of RAM [2]

Storing currently running applications

Storing data currently being used

2. (a) Describe the purpose of virtual memory. [1]

As an extra bit of emergency memory for the RAM in case it runs out of space.

(b) Describe how virtual memory is used. [3]

When the RAM is full, and you need to put more things into the RAM, some of the currently unused contents that are being stored in the RAM, like an application that is not currently on screen and loaded, will be copied into the virtual memory to make space in RAM, so that whatever you are trying to store into the RAM now can now be stored in the RAM because space has been made. Once you need the unused application or data from earlier that was moved into VM, it gets copied back into the RAM and something else in the RAM that is unused is copied into VM to make space in the RAM for the previously unused programs.

(c) Explain one problem that may occur while using virtual memory. [2]

Makes computer run slower because you have to copy the unused contents in RAM into the VM, before the program you are trying to open can be stored in the RAM.

3. List **two** advantages of using a magnetic hard disk as a form of secondary storage. [2]

It is cheap to buy saving money so accessible for more people

It has a long lifespan so you can use it for a very long time without needing a replacement.

4**.** Explain why a Solid State Drive (SSD) would be a suitable choice of secondary storage device for a tablet computer or smart phone. [2]

Because it is very small and portable, also it is efficient and fast. Therefore you can put it into the tablet or smartphone easily so it can be carried around and also it can keep up with the fast day to day use of these devices therefore store things quickly and efficiently.

[Total 16 marks]