1. The ROM and RAM differ in that the RAM can store more data and are used for different purposes. What are 2 other differences that you can list about RAM and ROM?

    -- [2]

2. Sandy argues that virtual memory is great at speeding up a computer. Do you think she's right? Explain below.

    -- [5]

3. Sallyanne has countered Sandy's point and said that rather than using virtual memory, it would be better to upgrade and increase the amount of RAM. Explain why this would improve a computer's performance.

    -- [2]

4. Here are some statements about the CPU of a computer.
   Tick one box in each row to show whether each of the following statements is true or false.

Statement	True	False
The ALU is a register		
The Control Unit directs and coordinates all computer operations.		
Each core in a CPU can process data independently from the others		
CPU Cache is a smaller memory bank than RAM		
The registers can individually store more data than the CPU cache		

[5]

5. Daniel wants to upgrade form a magnetic hard disk to a solid state hard disk for secondary storage. What are 2 advantage and 2 disadvantages to this?

Advantages:

Disadvantages:

----

[4]

6. Complete the blanks for the statement below explaining how a CPU processes the fetch stage of instructions.

Possible words to use:
CIR, ALU, MAR, PC, Address Bus, CU, Data Bus, Control Bus, MDR, Accumulator

The _____ stores the address of the next instruction to be carried out. This value is

then copied into the _____. The instruction held at the memory address is copied

over to the _____ transferred along the _____. The instruction is copied over

to the _____ and the _____ then instructs the PC to increment by 1.

[6]

7. Complete the following table to state which form of storage is most appropriate for each purpose.

Purpose	RAM	ROM	Register	Secondary Storage	Flash Memory
Stores instructions to boot the computer					
Can be used to store files portably					
Stores currently software and data while the computer is running					
Stores OS, Software and saved files					
Stores data or instructions during the FDE cycle					

[5]