**01** A typical computer's main memory consists of both RAM and ROM.

**01.1** Explain what is meant by the term RAM.

**[2 marks]**

Random Access Memory [1] stores data only whilst the device is turned on [1] volatile memory [1] working memory for CPU [1] memory that can be used for multiple purposes [1]

**01.2** What is normally stored in the ROM part of a computer's main memory?

**[1 mark]**

Boot instructions [1] BIOS [1] essential look up tables for logic gates [1] Accept commands for an embedded device as these are sometimes ROM only

**01.3** Explain what cache memory is used for in the Central Processing Unit (CPU).

**[2 marks]**

To hold recently executed instructions [1] and data [1] so that they can be reused more quickly [1] so cutting time it takes (the fetch-execute-decode) sequence to work [1]

**02** Tablet computers normally use solid state storage media instead of magnetic storage media.

State and explain two differences, other than cost and storage capacity, that make solid state media a better choice than magnetic media for tablet computers.

**[4 marks]**

One for each difference (up to 2); one for explanation of why this makes it better IN CONTEXT (i.e. for a tablet computer)

- No mechanical parts in solid state media - magnetic media unsuitable for mobile use because the mechanical parts cannot function during movement // mechanical parts are less robust during movement
- Speed of read access higher in solid state drives - data can often be read more quickly from solid state media than magnetic media
- Solid state media is smaller than magnetic media - smaller size enables better mobility
- Solid state media uses less power - battery will last longer // battery more of an issue for mobile devices
- Less heat generated when using solid state - less need for cooling which takes space and allows for more miniaturisation.
- Solid state is silent - makes it more attractive to use.

**IGNORE costs and storage capacity – in question**