Homework 4: The CPU and Fetch-Execute Cycle

1. The CPU operates on a cycle.

(a) What is the name of this cycle? [1]

Fetch Decode Execute

(b) Draw a diagram to illustrate what happens during this process with an   
explanation as to the different stages of the cycle. [4]

**Fetch**

**Execute**

**Decode**

1. Cache memory affects the performance of a computer system.

(a) Describe the purpose of cache memory in a computer system. [3]

**lets you access some information more quickly than if you access it from your computer's main hard drive.**

**Cache memory is a chip-based computer component that makes retrieving data from the computer's memory more efficient.**

(b) Describe briefly **two** other factors which affect the performance of a processor. [4]

**A thread simply means a line of codes or set of instructions that can be executed or processed within the CPU core, using multi-threading technology**.

**Bandwidth, or memory bandwidth, is the ability of the processor to read and write data within the memory.**

[Total 12 marks]