# Homework 2 The Processor

1. A processor contains the Arithmetic Logic Unit (ALU) and the Control Unit.   
   1. Describe the role of the the Control Unit. [2 marks]

* 1. The following registers are used in the Fetch-Execute cycle:

• program counter (PC)

• memory address register (MAR)

• memory buffer register (MBR)

• current instruction register (CIR)

The processor uses these registers as part of the Fetch-Execute cycle.

State how each of them is used within this cycle. [4 marks]

1. The performance of a processor is affected by many different factors. For example, the speed at which the processor is clocked determines how much time is taken to complete instructions. A higher clock rate generally results in the quicker processing of instructions but this is not the only factor.   
     
   Describe other factors that affect the performance of a processor. [6 marks]

[Total 12 marks]