1. Pair the term with the definition

- 1. CPU word size
- 2. ALU
- 3. Input/Output port
- 4. Timer/Counter
- a. It simply counts with a register in sync with a pre-defined clock source.
- b. A multi-purpose digital signal pin on an integrated circuit or electronic circuit board.
- c. It is a fundamental part of the CPU, that performs arithmetic and bitwise operations on integer binary numbers.
- d. It is a fixed-sized piece of data handled as a unit by the instruction set or the hardware of the processor.

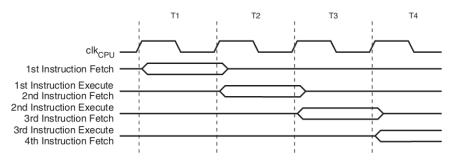
2. Which statement is true?

Processor register is a ...

- 1. quickly accessible location in the ROM.
- 2. quickly accessible location in the RAM.
- 3. quickly accessible location available to a MCU.
- 4. quickly accessible location available to CPU.

3. Please list the three levels of programming instruction!

4. What is in this figure?



- 1. ALU Operation Timing
- 2. Instruction Execution Timing
- 3. RAM access timing

5. Please describe how the timer works in normal mode!

- 6. How does PWM signal mean?
- a.) It is a square wave with variable duty cycle.
- b.) It is a square wave with variable frequency.
- a.) It is a square wave with variable amplitude.
- 7. Please list three error types of ADC!