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**Microprocessor Basics** **Quiz**

1. Which of the following is used to illustrate the output for all possible combinations of inputs?
   * + 1. NAND gate
       2. Boolean equation
       3. Timing diagram
       4. Truth table
2. What can be used to mathematically illustrate the functional operation of a logic gate?
   * + 1. Logic probe
       2. Boolean equation
       3. Truth table
       4. Timing diagram
3. What are the major subsections of a CPU?
   1. MPU and ROM
   2. VLSI and ASIC
   3. ALU and control unit
   4. EEPROM and volatile RAM
4. What is the main thing the microprocessor does?
   * 1. Multi-processing
     2. Calculations on data
     3. Executes instructions
     4. Memory fetch operations
5. In a computer, an instruction cycle is followed by a/an:
   1. Analog cycle
   2. Digital cycle
   3. Execution cycle
   4. Acknowledgement
6. Which bus signal is used to synchronize all microprocessor operations?
   1. The Read/Write signal
   2. The System Clock signal
   3. The Interrupt Request signal
   4. The DMA Request signal
7. What type of operation is performed when a data word is placed into memory?
   1. A Write operation
   2. A Read operation
   3. A Fetch operation
   4. An interrupt operation
8. What determines where a data word will be stored in a memory unit?
   1. Its address
   2. Its size
   3. Its type
   4. Its function
9. What type of gate performs the carry out function of an adder?
   1. An inverter
   2. An OR gate
   3. An AND Gate
   4. An Exclusive-OR
10. Instructions are processed:
    1. As a group
    2. Sequentially
    3. Randomly
    4. Only when the user provides input
11. List three types of buses.
12. List three of the basic parts to a computer.
13. What is a computer “bus” system?
14. List 3 examples of control signals.
15. How many bits in a byte?
16. Give the truth table for two input (A and B) addition.

17. What does the phrase “totem pole” in a circuit mean?

18. What are the two things a clock signal does?

19. What does a decoder circuit do?

20. Describe the relationship between the program counter and the stack.