PLC QUIZ #1

NAME: ____________________________

1) Pushbuttons, photo eyes and limit switches are all examples of:
   A. Input devices
   B. Output devices
   C. Internal relays

2) Give a practical example of a timer on delay.

3) Give a practical example of a timer off delay.

4) What is the sum of the binary numbers 11001 and 101? (please show work)
   a. 34
   b. 36
   c. 32
   d. 30

5) Which statement is true about the binary system? The binary system:
   a. Consists of only 8-bit information.
   b. Relies on ten different conditions.
   c. Replicates the two circuit conditions of open & closed.

6) Convert the number 23 to binary:
   a. 1101
   b. 10111
   c. 10001
   d. 10101
7) Match the ladder logic commands to the proper symbol:

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___ Examine if Closed

___ Output Energize

___ Examine if Open

8) Which type of PLC logic is used in the ladder below?

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a) OR
b) NAND
c) AND
d) NOR

9) Which statement is true about locating elements in diagrams and logic programs?
   a. Ladder diagrams must always have at least two outputs for each input.
   b. Ladder elements should always be programmed in their de-energized condition.
   c. Ladder logic always reads and solves a program from right to left.

10) Motor starters, solenoids and lamps are all examples of possible:
    a. Output devices
    b. Internal relays
    c. Input devices

11) Counters, timers and sequencers are all examples of:
    a. Output devices
    b. Internal relays
    c. Input devices
12) Which statement is true about PLC inputs and outputs?
   a. The PLC input symbol is a coil.
   b. Inputs have only two possible conditions.
   c. Outputs are energized by high voltage from the PLC.
   d. The binary system relies on ten digits.

13) Given PLC logical continuity, closing which combination of contacts would FAIL to energize the output?

   a) A, D, E
   b) A, B, C
   c) F, D, B, C
   d) F, E
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