

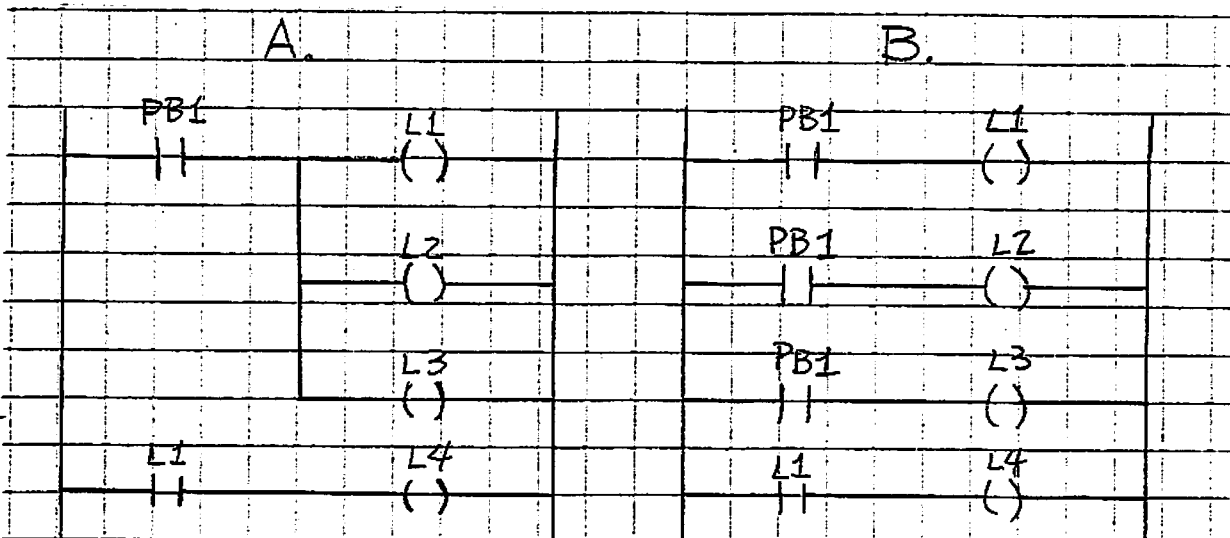
DATE: \_\_\_\_\_

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**MF141 - PLC TEST #2**

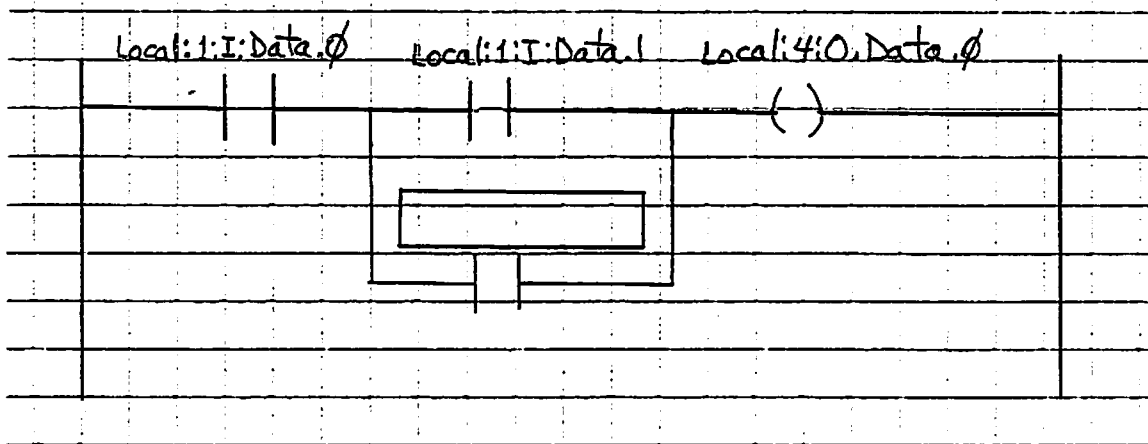
1. Which method is most often used for motor control with a PLC?
  - a. Unidirectional
  - b. Bidirectional
  - c. Direct
  - d. Indirect
  
2. For typical PLC ladder logics, draw:
  - a. An XIC :
  
  - b. An XIO:
  
3. Which executes first in a PLC program:
  - a. Subroutine
  - b. Main Routine
  
4. In the CPU memory, what digit represents a 'TRUE' indicator?
  - a. 0
  - b. 1
  - c. 2
  - d. T
  
5. E-STOP pushbuttons are always:
  - a. Located on top
  - b. N.O. contacts
  - c. Shown first in ladder logic rung
  - d. N.C. contacts

6. Which type of timer resumes timing from the retained value the next time it is energized?
- a. Non-Retentive
  - b. Retentive
  - c. EN
  - d. DN
7. Multiple safety interlocks can be used in a program by placing input instructions in \_\_\_\_\_ with each other on a rung.
- a. Series
  - b. Parallel
  - c. Pairs
8. What is the most common method of entering programs into a PLC?
- a. Hand-held programmer
  - b. Personal Computer
  - c. Via card reader
  - d. Memory Module
9. What is the difference between these two ladder logic programs?
- a. A is the correct way to draw it.
  - b. B is the correct way to draw it.
  - c. They will both get the same results
  - d. Outputs L2 and L3 will work on B, but not on A.



10. For the 'Sealed In' Logic (below) to work, what should be the tag for the parallel examine if closed instruction?

- a. Local:1:I:Data.2
- b. Local:1:I:Data.0
- c. Local:4:0:Data.0
- d. Local:4:0:Data.1



11. Which timer requires a separate reset instruction (RES) to reset the timer's accumulated value?

- a. Retentive Timer On (RTO)
- b. Timer Off-Delay (TOF)
- c. Timer On-Delay (TON)

12. If a time base is 0.001 seconds, how long will a timer count if the preset is set at 16,000?

- a. 1.6 seconds
- b. 16 seconds
- c. 160 seconds
- d. 1.6 minutes

13. \_\_\_\_\_ is a method of using logic in a PLC program to cause an output to turn on or off only if certain inputs or outputs are in a certain state.
- Continuity checking
  - Use of Main Operands
  - Program interlocking
  - Indirect control
14. How does an Internal Output instruction differ from the usual Output Energize (OTE) instruction?
- Internal Outputs must be shown first in the ladder logic program.
  - Internal Outputs do not directly control the outputs of a PLC.
  - There is no difference.
  - An Internal Output can only be referenced one time in the ladder logic program.
15. In Count Up and Count Down counters, which bit is set when the accumulated value equals the preset count?
- CU
  - DN
  - EN
  - RES
  - CD
16. What is the Binary equivalent to the Decimal number 33?
- 100111
  - 101001
  - 100001
  - 11110
  - 1000101

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