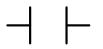# TC40 - Pre-Instructional Survey

1.   Identify the instruction symbol shown.

⊣ ⊢

        A.   Normally Open
        B.   Examine Input Open
        C.   Examine Input Closed
        D.   Normally Closed

2.   Identify the instruction symbol shown.

⊣ / ⊢

        A.   Normally Closed
        B.   Normally Open
        C.   Examine Input Closed
        D.   Examine Input Open

3.   Identify the instruction symbol shown.

—( )—

        A.   Control Relay Coil
        B.   Output Terminal Energize
        C.   Timer Coil
        D.   Motor Coil

4. You are using a MicroLogix 1100 programmable logic controller and you need to address an output. Which of the following is the correct syntax?

    A. O:0/3
    B. 0:0/3
    C. O:O/3
    D. 0:O/3

5. Which statement is true about a "One-Shot" instruction?

    A. The one-shot is true for one program scan.
    B. The one-shot must be the first instruction in the rung.
    C. The one-shot must be the only instruction in the rung.
    D. The one-shot rising is the only one-shot that is available.

6. How many hardware components are necessary to have a functional programmable logic controller system?

    A. 8
    B. 6
    C. 5
    D. 4

7. What is the correct bit status for a four bit binary address that is being used to display one BCD digit equal to the decimal number 6.

    A. 1110
    B. 1101
    C. 1010
    D. 0110

8. The "AND" gate is equivalent to the _____ electronic circuit.

    A. Series – Parallel
    B. Parallel – Series
    C. Series
    D. Parallel

9.   The "OR" gate is equivalent to the _____ electronic circuit.

   A.   Series – Parallel
   B.   Parallel – Series
   C.   Series
   D.   Parallel

10.   The manner in which the Latch and the Unlatch instructions are programmed:

   A.   Controls when they will function.
   B.   Determines if the logic is valid.
   C.   Determines which instruction is valid when both become true.
   D.   Should never be used in the same program.

11.   The "Done Bit" for a "TON" instruction is _____ when the accumulator value is equal to or greater than the _____ value.

   A.   Reset, Preset
   B.   Set, Preset
   C.   Preset, Reset
   D.   Set, Reset

12.   What data is stored in the INTEGER DATA FILE?

   A.   Decimal Numbers
   B.   Fractional Numbers
   C.   Whole Numbers
   D.   Exponential Numbers

13.   When numbers are stored in the integer data file so they can be used by the user program without outside intervention, this group or groups of data is commonly referred to as a

   A.   Look At Table
   B.   Look In Table
   C.   Look Up Table
   D.   Look For Table

14.   A device that is used to control the occurrence of a single event based on elapsed time is called a

    A.   Counter
    B.   Timer
    C.   One Shot
    D.   Reset

15.   A device that is used to control the occurrence of a single event based on how many times something has taken place is called a

    A.   Counter
    B.   Timer
    C.   One Shot
    D.   Reset

16.   If the number range being used is 0 to 16384 for a 4 to 20 mA input signal, what is the integer value that is present in the storage register if the input is 7.85 mA?

    A.   5145
    B.   4776
    C.   8038
    D.   6431

17.   What comparison instruction would be used if a value must always remain below the value 16384?

    A.   Great Than or Equal To 16383
    B.   Less Than or Equal To 16383
    C.   Less Than 16384
    D.   Greater Than 16384

18.   A thermocouple input module receives a signal in the form of

    A.   Milliamps.
    B.   Amps.
    C.   Millivolts.
    D.   Volts.

19. In the equation "Y = MX + B", the "B" represents the

    A. Scaled Value.
    B. Input Value.
    C. Slope.
    D. Offset.

20. Which of the following instructions would be used to linearize the signal being transmitted by a differential pressure transmitter in an orifice meter flow application?

    A. SQR
    B. SCL
    C. SCP
    D. SRO

21. Which of the following statements is true about the "Force Function".

    A. The "Force Function" can only be used when the system is running.
    B. The "Force Function" can only be used to force output data.
    C. The "Force Function" can only be used to force input data.
    D. The "Force Function" can only be used effectively to commission a new program or system.

22. Which type of documentation would be used if an address is to be used several times in the same manner throughout the program?

    A. Page Title
    B. Instruction Comment
    C. Address Description
    D. Tag Name

23. Which of the standards listed below describes the guidelines for programming a programmable logic controller?

    A. IEC 61511-3
    B. IEC 61131-3
    C. IEC 61508-3
    D. IEC 63111-3

24. Which statement is true about ladder logic development?

    A. The first instruction is the instruction that is least likely to be false.
    B. The first instruction is the instruction that is always false.
    C. The first instruction is the instruction that is least likely to be true.
    D. The first instruction is the instruction that is always true.

25. How may default data files are normally configured automatically when using a MicroLogix or SLC 500 series system.

    A. 6
    B. 7
    C. 8
    D. 9

TC40 - Pre-Instructional Survey Answers

1. C
2. D
3. B
4. A
5. A
6. C
7. D
8. C
9. D
10. C
11. B
12. C
13. C
14. B
15. A
16. D
17. C
18. C
19. D
20. A
21. D
22. C
23. B
24. C
25. D