

Chapter 01 Test Bank KEY

1. The number and type of I/Os cannot be changed in a fixed PLC.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the general classifications of PLC's
Section: 01.02 Parts of a PLC
Subtopic: PLC's Categories
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

2. In a PLC system, there is a physical connection between field input devices and output devices.

FALSE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

3. The scan time is the time required for one complete execution of the user program.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 5. Interpreting
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

4. The input/output system forms the interfaces through which field devices are connected to the controller.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.02 Parts of a PLC
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

5. Plug-in compartments allow I/O modules to be easily connected and replaced.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

6. A personal computer communicates with the PLC processor via a serial or parallel data communications link.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.02 Parts of a PLC
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

7. The programming device must be connected to the controller to run the program.

FALSE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.02 Parts of a PLC
Subtopic: Programming Methods
Units: NA

8. PLC systems usually require as much space in an enclosure as equivalent hardwired relay systems.

FALSE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.01 Programmable Logic Controllers
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

9. A PLC is basically a computer designed for use in electrical control applications.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.01 Programmable Logic Controllers
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

10. The programmable controller operates in real time.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.01 Programmable Logic Controllers
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

11. One disadvantage of modular I/O is its lack of flexibility.

FALSE

*Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems
Section: 01.02 Parts of a PLC
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA*

12. A PLC power supply module does not normally supply power to the field devices.

TRUE

*Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA*

13. Removing the programming device from the PLC will not affect the operation of the user program.

TRUE

*Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.02 Parts of a PLC
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA*

14. Software installed and run on a personal computer can be used to write a PLC program.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.05 PLC's versus Computers
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

15. The instruction set for a particular PLC lists the types of instructions supported.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.06 PLC Size and Application
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

16. When dealing with PLC memory, 1 K of memory represents 1024.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.05 PLC's versus Computers
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

17. The number of I/O points does not affect the memory size required for a PLC installation.

FALSE

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.06 PLC Size and Application

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

18. PLCs were originally designed as replacements for

- A. microcomputers.
- B.** relay control panels.
- C. analog controllers.
- D. digital controllers.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

19. Basically, the function of a PLC is to
- A. amplify various weak signal sources.
 - B. control a high-voltage output with a low-voltage input.
 - C. control the speed of motors.
 - D. make logical decisions and control outputs based on them.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

20. Modifying relay-type process control circuits usually involves changing the

- A. circuit wiring.
- B. input circuit modules.
- C. output circuit modules.
- D. circuit operating voltage levels.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

21. Which of the following is *not* an advantage that PLCs offer over the conventional relay-type of control system?

- A. Smaller size
- B. Less expensive
- C. Higher current capacity
- D. More reliable

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

22. The main difference between a PLC and relay control system is that

- A. different types of input devices are used.
- B. different types of output devices are used.
- C. different input and output voltage levels are used.
- D. one uses hardwired relay control logic and the other uses programmed instructions.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

23. The central processing unit

- A. looks at the inputs, makes the decisions based on the program, and sets the outputs.
- B. looks at the outputs, makes the decisions based on the program, and sets the inputs.
- C. serves only to store the program in memory.
- D. serves only to supply power to the backplane.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

24. PLC proprietary architecture

- A. is the opposite to open architecture.
- B. makes it more difficult to connect to devices made by other PLC manufacturers.
- C. does not allow programs to be interchanged between different PLC manufacturers.
- D. All of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.04 Parts of a PLC

Subtopic: Programming Methods

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

25. The output interface module connects to

A. sensing devices such as switches or pushbuttons.

B. load devices such as lamps or solenoids.

C. a programming device such as a computer.

D. All of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.01 Programmable Logic Controllers

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

26. *Field* or *real-world* devices refer to

A. input devices only.

B. output devices only.

C. load devices only.

D. all devices that are physically wired to the PLC.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

27. The power required to operate the logic circuits of the processor unit is typically

- A. low-voltage ac.
- B. high-voltage ac.
- C. low-voltage dc.
- D. high-voltage dc.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.01 Programmable Logic Controllers

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

28. The control plan stored in the PLC is called

- A. a program.
- B. a Boolean ladder.
- C. FORTRAN.
- D. a microprocessor.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Define what a programmable logic controller is and list its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

29. The programming device

- A. is used to enter the program into the memory of the processor.
- B. is commonly a personal computer.
- C. can be a hand-held device.
- D. All of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

30. The programming device must be connected to the controller

- A. at all times.
- B. when entering a program.
- C. when monitoring a program.
- D. both when entering a program and when monitoring a program.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.04 Parts of a PLC

Subtopic: Programming Methods

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

31. The symbol  in a ladder logic diagram

A. can be thought of as a normally open contact.

B. represents a capacitor.

C. is always at logic 0.

D. is always at logic 1.

Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

32. The symbol  in a ladder logic diagram represents a

A. set of normally closed contacts.

B. virtual relay coil.

C. seal-in contact.

D. field input sensing device.

Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

33. When a field device contact connected to the input module closes

- A. a logic 1 is recorded in the memory location of the coil with the same address.
- B.** a logic 1 is recorded in the memory location of the contact with the same address.
- C. a logic 0 is recorded in the memory location of the coil with the same address.
- D. None of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.03 Principles of Operation

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

34. At the start of the PLC scan, the

- A.** status of all inputs are read.
- B. status of all outputs are updated.
- C. program is executed.
- D. diagnostics and communications tasks are executed.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.02 Parts of a PLC

Subtopic: Programming Methods

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

35. The scan time is the time required
- A. to record the status of all input devices.
 - B. to record the status of all output devices.
 - C. to execute one cycle of the total program.
 - D. for the information to pass from input to output.

Accessibility: Keyboard Navigation
Bloom's: Object 2. Conceptual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.02 Parts of a PLC
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

36. Unlike personal computers, PLCs are
- A. equipped with input and output modules.
 - B. equipped with a control programming language.
 - C. designed for the industrial environment.
 - D. All of these choices are correct

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.05 PLC's versus Computers
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

37. A human machine interface (HMI)
- A. allows the user to monitor a process.
 - B. allows the user to control a process.
 - C. can provide a graphical representation of a process.
 - D. All of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.05 PLC's versus Computers

Subtopic: PLC's versus Computers

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

38. Programmable logic controllers are categorized according to the

- A. number of I/O points.
- B. current rating of I/O modules.
- C. power rating of the I/O modules.
- D. cost of the I/O modules.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

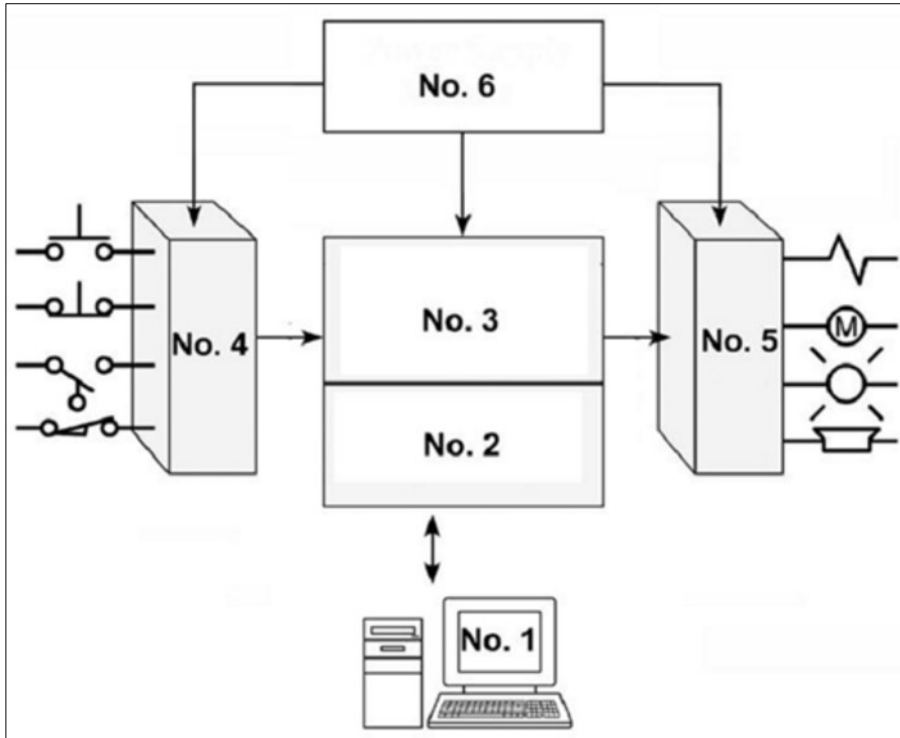
Section: 01.06 PLC Size and Application

Subtopic: PLC's Categories

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No.1 of the PLC block diagram represents the



- A. CPU unit.
- B. programming device.
- C. input module.
- D. output module.

Bloom's: Object 1, Factual

Bloom's: Verb 1, Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

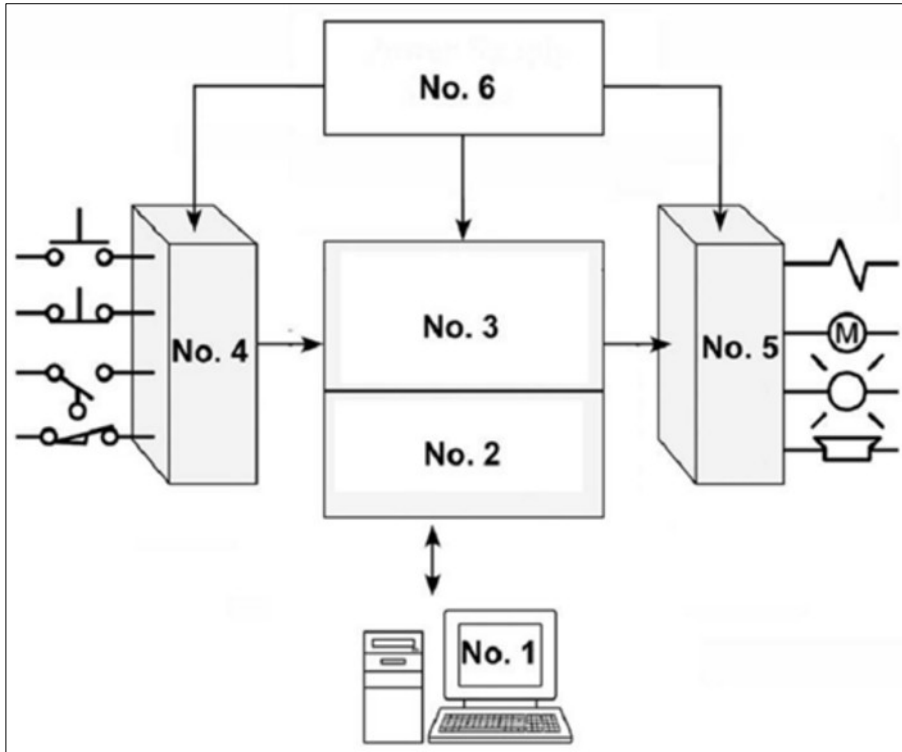
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No. 2 of the PLC block diagram represents the



- A. memory.
- B. programming device.
- C. input module.
- D. power supply module.

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

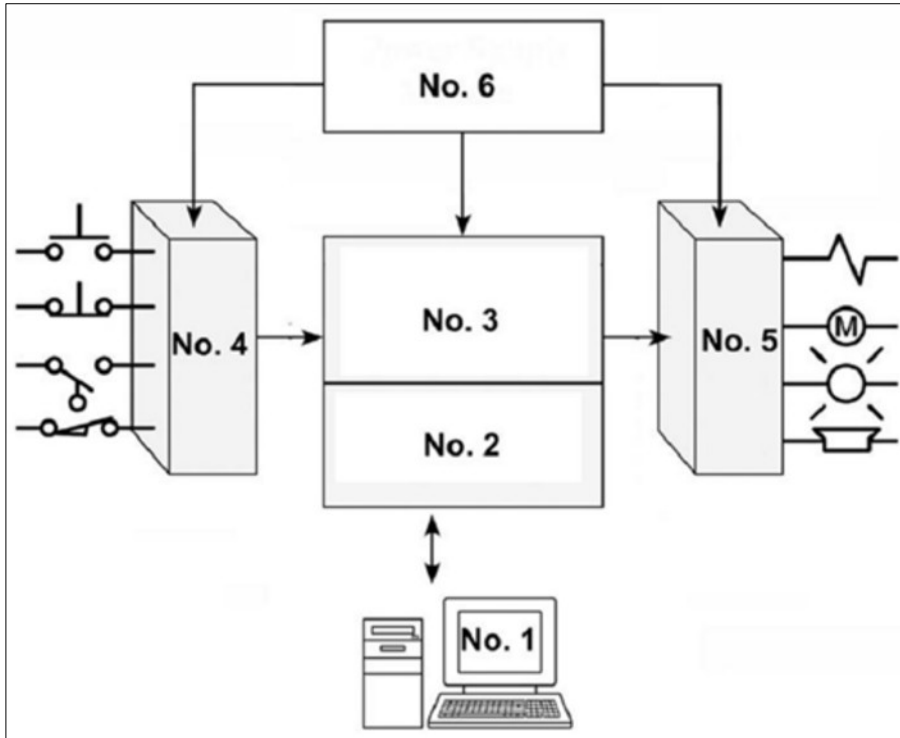
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No. 3 of the PLC block diagram represents the



- A. CPU unit.
- B. programming device.
- C. input module.
- D. output module.

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

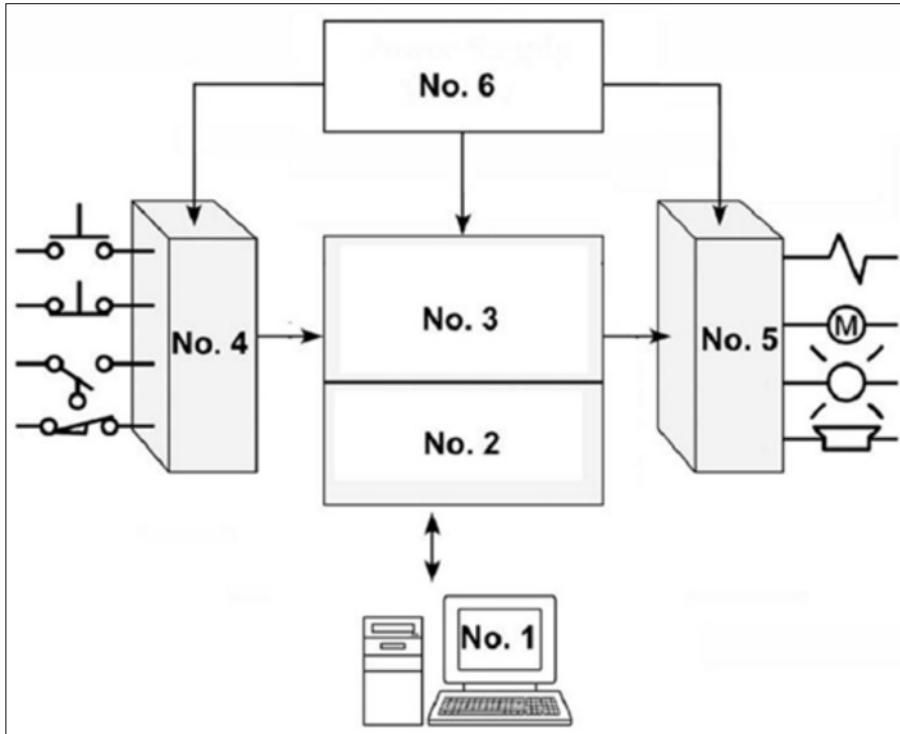
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No. 4 of the PLC block diagram represents the



- A. memory.
- B. programming device.
- C. input module.
- D. CPU.

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

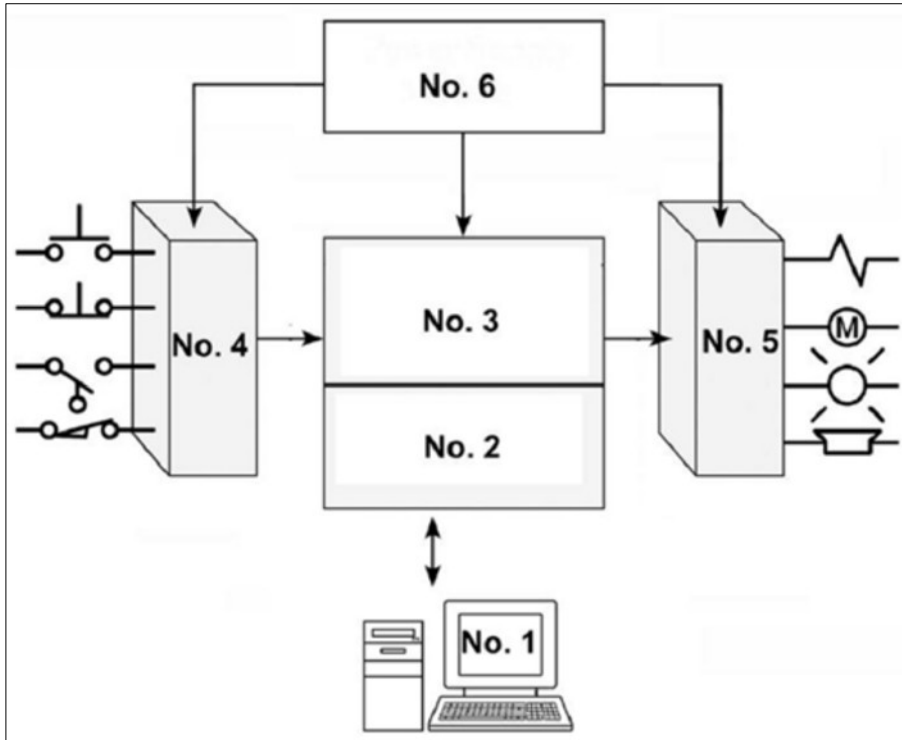
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No. 5 of the PLC block diagram represents the



- A. memory.
- B. power supply module.
- C. input module.
- D. output module.

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

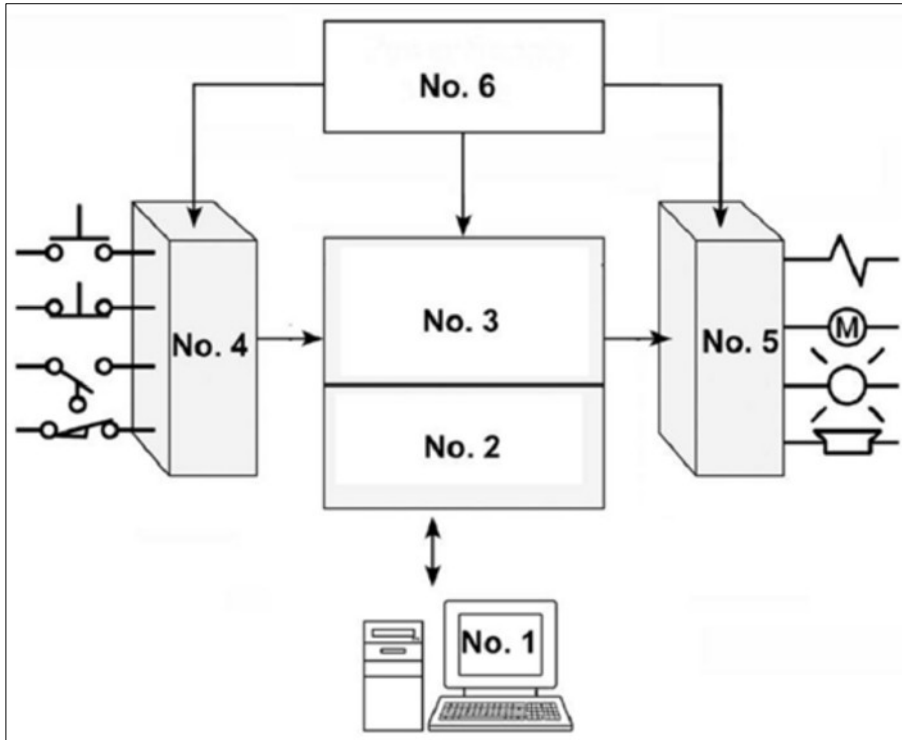
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

Block No. 6 of the PLC block diagram represents the



- A. processor module.
- B.** power supply module.
- C. input module.
- D. output module.

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

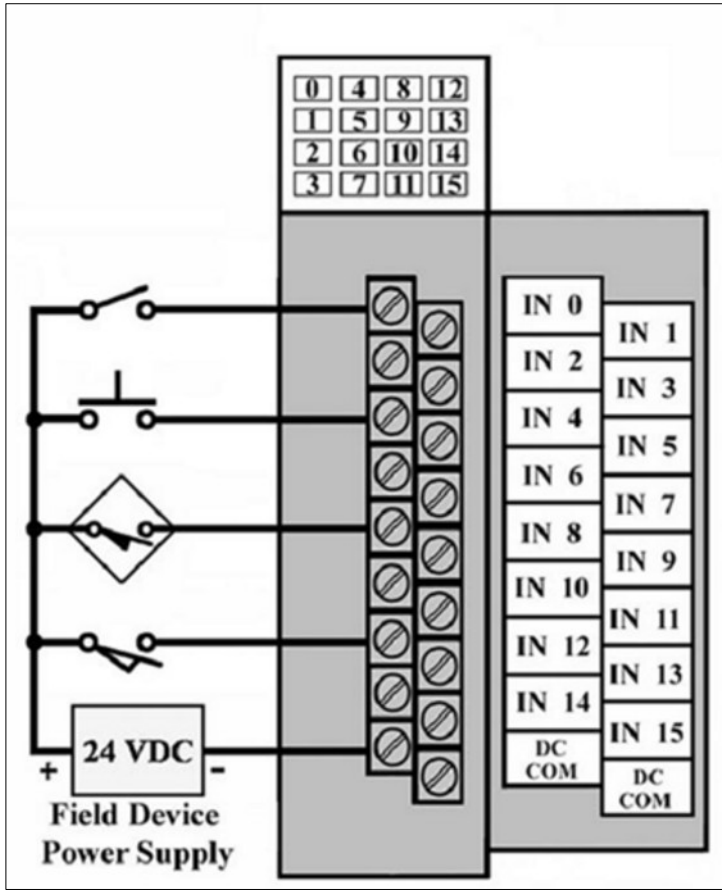
Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

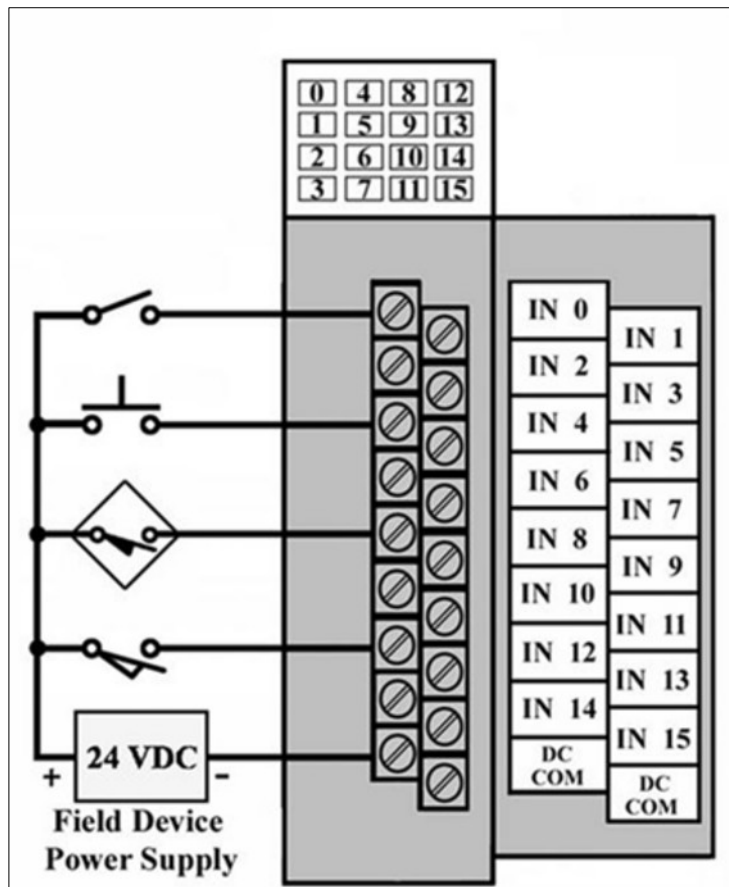
45. The diagram shown is a



- A. relay schematic.
- B. ladder logic program.
- C. input module wiring.
- D. output module wiring.

Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
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Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

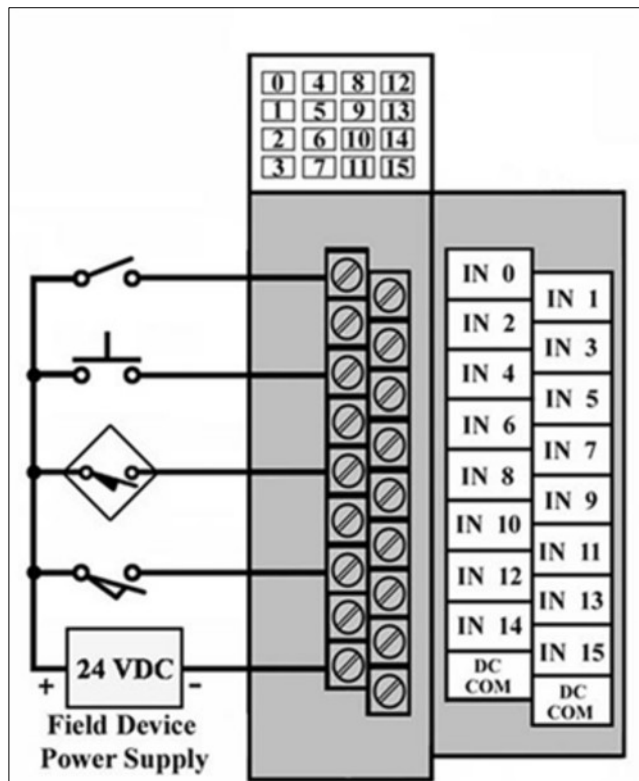
46. The voltage that would be present between the DC common and terminal 4 with the pushbutton open would be approximately



- A. 0 volts.
- B. 6 volts.
- C. 12 volts.
- D. 24 volts.

Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
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Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

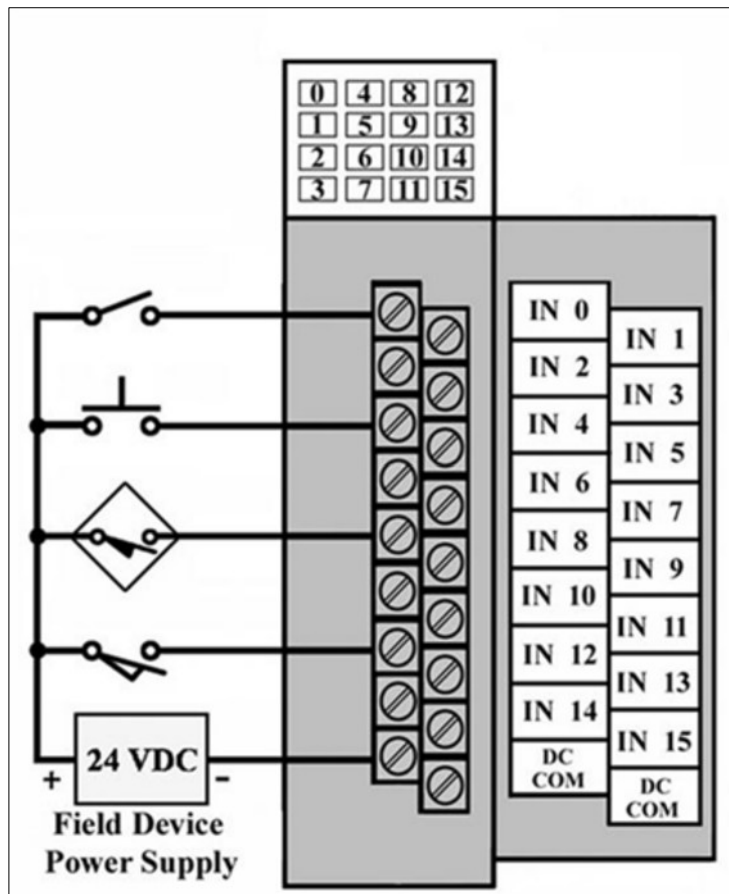
47. The voltage that would be present between the DC common and terminal 4 with the pushbutton closed would be approximately



- A. 0 volts.
- B. 6 volts.
- C. 12 volts.
- D. 24 volts.

Bloom's: Object 1. Factual
 Bloom's: Verb 1. Remember
 Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
 Difficulty: Easy
 Gradable: automatic
 Learning Objective: Identify the main parts of a PLC and describe their functions
 Section: 01.02 Parts of a PLC
 Subtopic: Components of a PLC
 Topic: Programmable Logic Controllers (PLC's) An Overview
 Units: NA

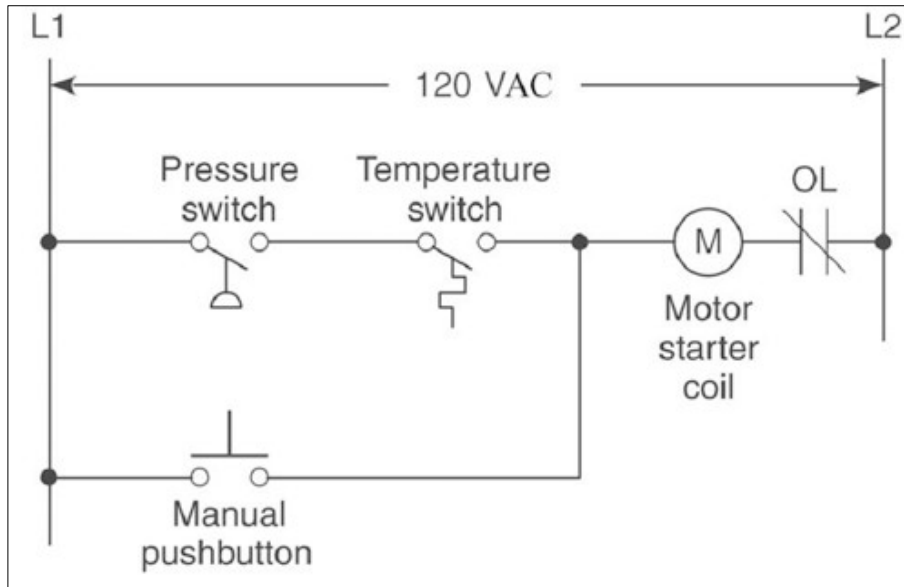
48. The devices connected to the terminals would be classified as



- A. field input devices.
- B. internal input instructions.
- C. field output devices.
- D. internal output instructions.

Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

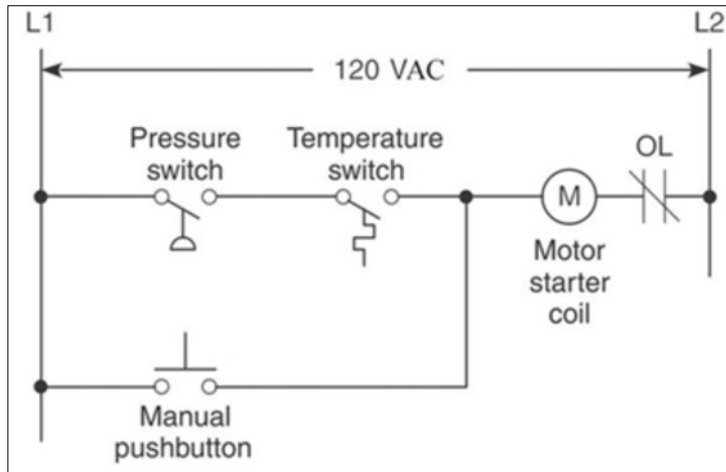
49. The diagram shown is that of a



- A. hardwired relay schematic.
- B. ladder logic program.
- C. input module schematic.
- D. output module schematic.

Bloom's: Object 2. Conceptual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

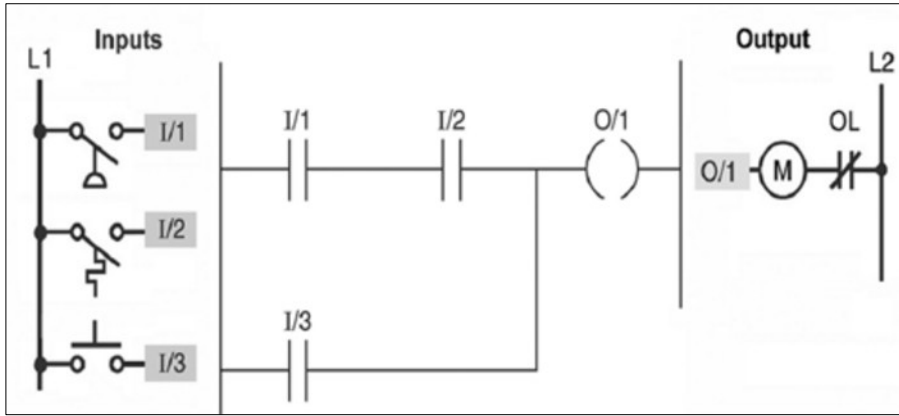
50. In order to energize the starter coil



- A. the pressure switch, and the temperature switch, and the manual pushbutton must be closed.
- B. the pressure switch, or the temperature switch, or the manual pushbutton must be closed.
- C. the pressure switch, and the temperature switch, or the manual pushbutton must be closed.
- D. All of these choices are correct

Bloom's: Object 2. Conceptual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

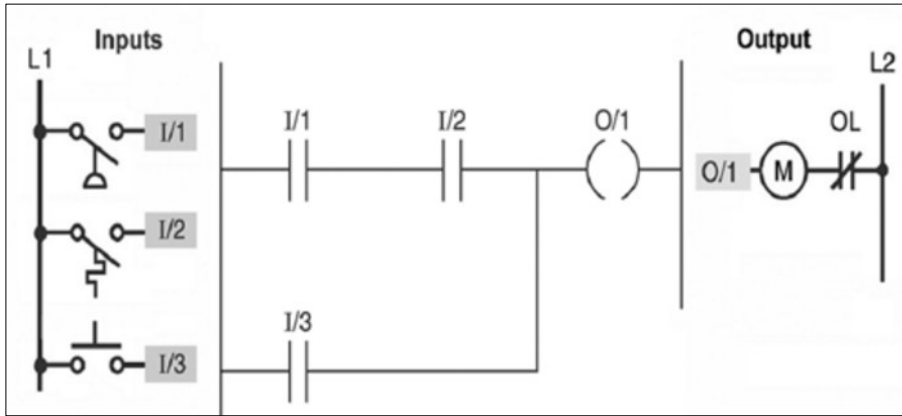
51. The diagram shown is that of a



- A. relay schematic.
- B.** ladder logic program.
- C. input module wiring diagram.
- D. output module wiring diagram.

Bloom's: Object 2. Conceptual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

52. For there to be a continuous logic path from left to right across the rung



- A. I/1, I/2, and I/3 must all be at logic 1.
- B. I/1, I/2, and I/3 must all be at logic 0.
- C. I/1 and I/2 or I/3 must be at logic 1.
- D. I/1 and I/2 or I/3 must be at logic 0.

Bloom's: Object 3. Procedural
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Medium
Gradable: automatic
Learning Objective: Explain the basic operation of a PLC
Section: 01.03 Principles of Operation
Subtopic: Programming Methods
Topic: Programmable Logic Controllers (PLC's) An Overview
Units: NA

53. The PLC power supply module normally is rated to provide the power for

- A. all field devices.
- B. input field devices only.
- C. output field devices only.
- D. PLC backplane and I/O modules.

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

54. Which module of the PLC is responsible for performing logical operations?

- A. Processor
- B. Input
- C. Output
- D. Power supply

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

55. Which module of the PLC connects directly to field devices such as pilot lights, motor starters, and solenoids?

- A. Input
- B. Output**
- C. Power supply
- D. Memory

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

56. _____ I/Os are typical of small PLCs that come in one package with no separate removable units.

- A. Fixed**
- B. Modular
- C. Digital
- D. Analog

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

57. PLC software that runs on a personal computer can be used to

- A. write a PLC program.
- B. document a PLC program.
- C. monitor the control process.
- D. All of these choices are correct

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Identify the general classifications of PLC's

Section: 01.05 PLC's versus Computers

Subtopic: PLC's versus Computers

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

58. A control management PLC application normally requires a

- A. micro-size PLC.
- B. small-size PLC.
- C. medium-size PLC.
- D. large-size PLC.

Accessibility: Keyboard Navigation

Bloom's: Object 2. Conceptual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.06 PLC Size and Application

Subtopic: Programming Methods

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

59. Which of the following is *not* a factor affecting the memory size needed for a particular PLC installation?

- A.** Voltage rating of field devices
- B. Number of I/O points
- C. Size of control program
- D. Supervisory functions

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Medium

Gradable: automatic

Learning Objective: Explain the basic operation of a PLC

Section: 01.06 PLC Size and Application

Subtopic: Programming Methods

Topic: Programmable Logic Controllers (PLC's) An Overview

Units: NA

60. Before PLCs, industrial control was usually solved with electromechanical relays.

TRUE

Accessibility: Keyboard Navigation

Bloom's: Object 2. Conceptual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a PLC is and its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers an Overview

Units: NA

61. The speed which PLC programs operate is slower than conventional relays.

FALSE

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 2. Understand

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Define what a PLC is and its advantages over relay systems

Section: 01.01 Programmable Logic Controllers

Subtopic: Overview of PLC's

Topic: Programmable Logic Controllers an Overview

Units: NA

62. PLCs have sporadic reliability.

FALSE

Accessibility: Keyboard Navigation
Bloom's: Object 2. Conceptual
Bloom's: Verb 2. Understand
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Define what a PLC is and its advantages over relay systems
Section: 01.01 Programmable Logic Controllers
Subtopic: Overview of PLC's
Topic: Programmable Logic Controllers an Overview
Units: NA

63. All PLCs have input and output interfaces and a memory capability.

TRUE

Accessibility: Keyboard Navigation
Bloom's: Object 2. Conceptual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers an Overview
Units: NA

64. A programming terminal must be connected to the PLC at all times.

FALSE

Accessibility: Keyboard Navigation
Bloom's: Object 1. Factual
Bloom's: Verb 1. Remember
Chapter: 01 Programmable Logic Controllers (PLC's) An Overview
Difficulty: Easy
Gradable: automatic
Learning Objective: Identify the main parts of a PLC and describe their functions
Section: 01.02 Parts of a PLC
Subtopic: Components of a PLC
Topic: Programmable Logic Controllers an Overview
Units: NA

65. Most PLCs can now be programmed using personal computers.

TRUE

Accessibility: Keyboard Navigation

Bloom's: Object 1. Factual

Bloom's: Verb 1. Remember

Chapter: 01 Programmable Logic Controllers (PLC's) An Overview

Difficulty: Easy

Gradable: automatic

Learning Objective: Identify the main parts of a PLC and describe their functions

Section: 01.02 Parts of a PLC

Subtopic: Components of a PLC

Topic: Programmable Logic Controllers an Overview

Units: NA

Chapter 01 Test Bank Summary

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