**Chapter 3 Quiz Answers**

1. What is a processor's maximum capacity of inputs and outputs?

a. 1,024

b. 256

c. 40,000

d. unlimited

1. What is one of the drawbacks to using hand-held programmers?

a. They require more time.

b. They are more expensive.

c. They lack portability.

d. They require backup power.

1. When a PLC is first turned ON, it will run a self-diagnostic or self-check test.

a. True

b. False

1. Which of the following is *not* one of the four steps in a typical program scan?

|  |  |  |  |
| --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | |  | a. Read and solve the logic of the program (ladder logic). |  | |
| |  |  |  | | --- | --- | --- | |  | b. Clear ROM to accommodate new program data. |  | |
| |  |  |  | | --- | --- | --- | |  | c. Determine the status of the input devices (ON or OFF). |  | |
| |  |  | | --- | --- | |  | d. Update the output devices (turn ON or OFF). | |  | 1. What is the most common type of volatile memory?   a. PROM  b. EAROM  c. EEPROM  d. RAM   1. Which of the following can be used to erase memory in an EPROM chip?  |  |  |  |  | | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | |  | a. Loss of power |  | | | |  |  |  | | --- | --- | --- | |  | b. Activation of an erase signal |  | | | |  |  |  | | --- | --- | --- | |  | c. Exposure to UV light |  | | | |  |  | | --- | --- | |  | d. Removal from the board | |  1. 1K of memory is actually \_\_\_\_\_\_\_\_.   a. 1,000 words  b. 1,010 words  c. 1,024 words  d. 1,042 words   1. Memory that requires a battery backup to protect data in case of a power failure is known as \_\_\_\_\_\_\_\_ memory.   a. FLASH  b. volatile  c. solid-state  d. EEPROM   1. Which of the following is not a type of nonvolatile memory?   a. EEPROM  b. PROM  c. FLASH  d. HMOS   1. For safety, lithium batteries should not be exposed to which of the following?   a. Cold  b. Copper  c. Magnets  d. Water   1. The actual scan time, or time it takes the PLC to complete a four-step scan, decreases as the number of program words increases.   a. True  b. False | |

1. Reverse video of contacts and coils in a programmable device indicates which of the following?

a. Power failure

b. Memory loss

c. Logic continuity

d. Program timeout

1. A(n) \_\_\_\_\_\_\_\_ timer is preset to an amount of time that is slightly longer than the normal scan time.

a. logic

b. quartz

c. watchdog

d. interval

1. Which term describes changes that are made after a program has been loaded into the processor?

a. Stopgap programming

b. On-line programming

c. Delayed programming

d. Off-line programming

1. Memory that can retain stored data following loss of power in a device is called \_\_\_\_\_\_\_\_ memory.

a. volatile

b. solid-state

c. nonvolatile

d. CMOS-RAM