Pre-Test

Multiple Choice

1) One external switch is attached to the VFD. This switch is for starting and stopping the VFD. A potentiometer is also wired to the VFD and it changes the speed of the motor. This type of control arrangement is known as which of the following?

A. Local or Hand Control
B. Remote Control
C. Cascade Control
D. Master/Slave Control
E. Closed Loop Control

2) If an RS-485 connection is wired between a VFD and a DDC controller, this control arrangement is known as which of the following:

A. Remote Control
B. Closed Loop Control
C. Master/Slave Control
D. Cascade Control
E. Serial Communications

See notes for questions 3-5.

3) If a single VFD operates 3 motors, which of the following must be remembered?

A. It must be connected in a Master/Slave arrangement.
B. The VFD must use a Cascade Controller Card.
C. An RS-485 connection must be made between the VFD and motors.
D. Each of the 3 motors must have overload protection.
E. All of the above are required.

4) A fan, using a VFD, is described as a Closed Loop control arrangement. Which of the following must always be programmed in the VFD?

A. A sensor must be wired to the VFD monitoring the feedback signal.
B. The VFD must be given a setpoint.
C. A Derivative setting must always be programmed.
D. A and B are correct but not C.
E. All three answers, A, B and C are correct.

5) Multiple pumps are to be operated together to maintain the correct pressure in a hot water supply. When the demand increases beyond the capacity of the initial pump, which uses a VFD, separate fixed stages are enabled to start additional pumps. This control arrangement is referred to as which of the following:

A. Multi Motor Control
B. Master/Slave Control
C. Cascade Control
D. Serial Communications
E. Open Loop Control

How did you do?

Answers:

1. B. Remote Control
2. E. Serial Communications
3. D. Each of the 3 motors must have overload protection.
4. D. A and B are correct, but not C.
5. C. Cascade Control

If you got 4 or 5 right – skip this lesson and go to Lesson 3.

If you only got 3 or less right please review this lesson.