

TC05C2 – Pre-Instructional Survey

Name _____ Date _____

1. Cascade control has the following:
 - a. Two processes, two transmitters, two valves, and two controllers
 - b. Two processes, two transmitters, two valves, and no controller
 - c. Two processes, two transmitters, one valve, and no controller
 - d. Two processes, two transmitters, one valve, two controllers

2. In cascade control
 - a. The primary process should be faster than the secondary.
 - b. The secondary process should be faster than the primary.
 - c. Both processes should be about the same.
 - d. The time response of the processes is of little concern.

3. The real advantage of cascade control is to:
 - a. Compensate a disturbance in the primary
 - b. Eliminate dead time in the primary process
 - c. Compensate dead time in the secondary process
 - d. Compensate a disturbance in the secondary process

4. Cascade control has an advantage over single element control systems when:
 - a. Precise control is required
 - b. Control variable time constants are about equal
 - c. Control variable dead times are about equal
 - d. There is no dead time
 - e. There is considerable difference in control system time constants

5. In ratio control,
 - a. The wild flow follows the controlled flow.
 - b. The wild flow is never controlled.
 - c. The controlled flow is set by the wild flow.
 - d. The output of the ratio station is independent of the wild flow.

6. Feedforward control:
 - a. Anticipates the effect of a process change as well as disturbances
 - b. Anticipates the effect of disturbances
 - c. Requires measurement of control variables
 - d. Does not have offset
 - e. Requires digital controllers and calculations

7. Feedforward control operates on the measurement of
 - a. Process variable
 - b. Manipulated variable
 - c. Measured variable
 - d. Disturbance variable

8. The process parameter that is most detrimental to good control is:
 - a. Capacity
 - b. Gain
 - c. Time Constant
 - d. Dead time

9. Feedforward controller tuning:
 - a. requires self tuning controllers
 - b. Is similar to feedback tuning features
 - c. May be empirical or analytical
 - d. Is normally not necessary with feedback trim control
 - e. May cause process cycling

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1. d
2. b
3. d
4. e
5. b
6. b
7. d
8. d
9. c