KEY

ECE 365/460 – Quiz 11

Name:
Honor Code:

Choose the best answer. Answers may be used more than once. Answers may not be used at all.

1. C You wish to reduce SSE to 0.
2. F You wish to reduce SSE without appreciably effecting transient response. The controller must be implemented passively.
3. E You wish to reduce overshoot from 25% to 10%, while maintaining the same Ts. The controller must be implemented passively.
4. D You wish to reduce overshoot from 25% to 10% while driving SSE to 0 and maintaining a Ts of 1s.
5. A You wish to implement the simplest possible controller that will reduce the overshoot in your system. Ts, Tp, SSE can change if necessary.
6. G You wish to reduce overshoot, settling time and SSE. Your controller should be implemented using capacitors and inductors alone.
7. E Your system has unacceptably high overshoot and unacceptably low settling time. You wish to build a controller that doesn't require any power supplies to correct these parameters.
8. F You wish to reduce the SSE in your system by a factor of 12.75.
9. F You wish to improve the SSE of your system by placing a pole and a zero very close together and near the origin.
10. B You wish to change the transient response of your system by placing a zero only.

Answers:

a	a. P	e	b. Lead
b	b. PD	f	c. Lag
c	c. PI	g	d. Lead Lag
d	e. PID		