Assignment 7

The day for identifying the assignment has passed.

Due on 2023-03-15, 23:59:59.0

1. Describe any or all of the following tasks, but do so clearly:
   a. sensor
   b. controller
   c. actuator
   d. actuator
   e. amplifier
   f. transducer
   g. actuator

   No, the answer is incorrect.

   Accepted answer:

   2. Draw a block diagram of a simple control system. Do not label the various blocks. 1 point

   a. Classical control
   b. Frequency domain analysis
   c. State-space analysis
   d. Bode plots
   e. Nyquist plots

   No, the answer is incorrect.

   Accepted answer:

   3. The transfer function of a linear time invariant system is given as _______.

   a. A(t) = B(t) + C(t)
   b. $A(s) = \frac{B(s)}{C(s)}
   c. A(t) = \int B(t) dt
   d. $\int A(s) = \frac{B(s)}{C(s)}
   e. A(t) = \sum B(t)

   No, the answer is incorrect.

   Accepted answer:

   4. The open-loop frequency response of a control system is given as _______.

   a. $A(j\omega) = \frac{B(j\omega)}{C(j\omega)}
   b. $\int A(j\omega) = \frac{B(j\omega)}{C(j\omega)}
   c. A(t) = \sum B(t)
   d. $\int A(j\omega) = \frac{B(j\omega)}{C(j\omega)}
   e. $\int A(j\omega) = \sum B(t)

   No, the answer is incorrect.

   Accepted answer:

   5. The closed-loop system's $\omega_n = \omega_c$, then the following condition must be satisfied:

   a. $\omega_c = \omega_n$
   b. $\omega_c = -\omega_n$
   c. $\omega_c = \omega_n/2$
   d. $\omega_c = 2\omega_n$
   e. $\omega_c = \omega_n^2$

   No, the answer is incorrect.

   Accepted answer:

   6. The overall plant transfer function of a control system is given as _______.

   a. $A(s) = \frac{B(s)}{C(s)}
   b. $A(s) = \frac{B(s)}{C(s)}
   c. A(t) = \sum B(t)
   d. $A(s) = \frac{B(s)}{C(s)}
   e. $A(s) = \frac{B(s)}{C(s)}

   No, the answer is incorrect.

   Accepted answer:

   7. The overall plant transfer function of a control system is given as _______.

   a. $A(s) = \frac{B(s)}{C(s)}
   b. $A(s) = \frac{B(s)}{C(s)}
   c. A(t) = \sum B(t)
   d. $A(s) = \frac{B(s)}{C(s)}
   e. $A(s) = \frac{B(s)}{C(s)}

   No, the answer is incorrect.

   Accepted answer:

   8. The overall plant transfer function of a control system is given as _______.

   a. $A(s) = \frac{B(s)}{C(s)}
   b. $A(s) = \frac{B(s)}{C(s)}
   c. A(t) = \sum B(t)
   d. $A(s) = \frac{B(s)}{C(s)}
   e. $A(s) = \frac{B(s)}{C(s)}

   No, the answer is incorrect.

   Accepted answer:

   9. The overall plant transfer function of a control system is given as _______.

   a. $A(s) = \frac{B(s)}{C(s)}
   b. $A(s) = \frac{B(s)}{C(s)}
   c. A(t) = \sum B(t)
   d. $A(s) = \frac{B(s)}{C(s)}
   e. $A(s) = \frac{B(s)}{C(s)}

   No, the answer is incorrect.

   Accepted answer: