Started on	Saturday, 31 July 2021, 12:25 PM
State	Finished
Completed on	Saturday, 31 July 2021, 12:32 PM
Time taken	6 mins 27 secs
Grade	**6.50** out of 10.00 (**65**%)

Question **1**

Correct

Mark 3.50 out of 3.50

Answer the questions below, (**Insert the numerical value only, do not use <,>,+, *, or /**)

The Relative error for your answer should be less than 0.01, which means if the answer was 50, then the error should not exceed 50*0.01= ±0.5!

if the answer was 230, then the error should not exceed 230*0.01= ±2.3!

if the answer was 2.31467*10^-3, then you should enter this value: 0.00231467, not this 0.0023 !!!!

Consider a system with transfer function G(s) = (s+6)/(17s^2+ks+54). Its damping ratio will be 0.6 when the values of k is: 36.3

✔

One possible correct answer is: 36.358217778103

Question **2**

Incorrect

Mark 0.00 out of 3.50

Answer the questions below, (**Insert the numerical value only, do not use <,>,+, *, or /**)

The Relative error for your answer should be less than 0.01, which means if the answer was 50, then the error should not exceed 50*0.01= ±0.5!

if the answer was 230, then the error should not exceed 230*0.01= ±2.3!

if the answer was 2.31467*10^-3, then you should enter this value: 0.00231467, not this 0.0023 !!!!

For the system 1/(s+0.86), the approximate time taken for a step response to reach 85% of its final value is: 2.231 seconds

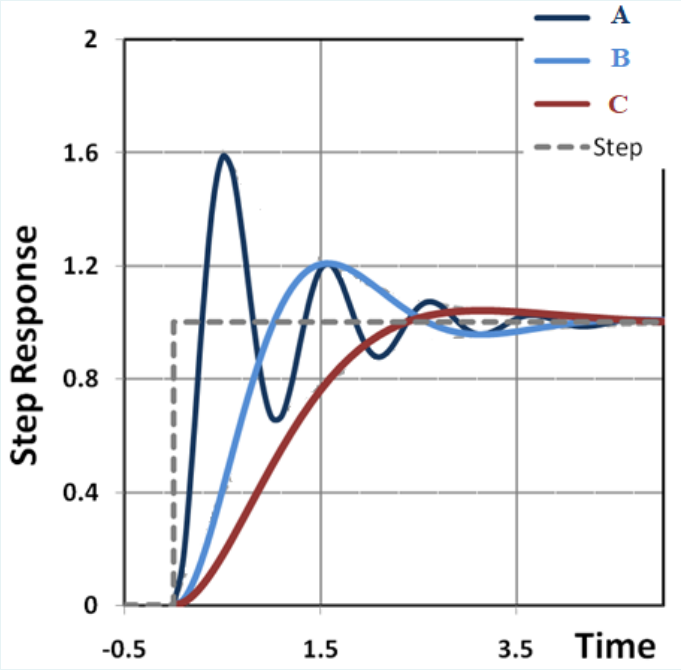
✖

One possible correct answer is: 2.2059534707975

Question 3

Correct

Mark 3.00 out of 3.00



For the three different step responses of three different second order systems shown here, the closed loop poles of the three systems (A, B and C, respectively) could be:

- a. (-15±j1), (-15±j2), (-15±j3)
- b. (-1±j5), (-2±j15), (-3±j15)
- c. (-3±j15), (-2±j15), (-1±j15)
- d. (-15±j3), (-15±j2), (-15±j1) ✔

The correct answer is: (-15±j3), (-15±j2), (-15±j1)

◄ Quiz #1

Jump to...

Quiz #3 ►

Data retention summary