Started on	Tuesday, 17 August 2021, 12:20 PM
State	Finished
Completed on	Tuesday, 17 August 2021, 12:34 PM
Time taken	14 mins 42 secs
Grade	**10.00** out of 10.00 (**100**%)

Question 1

Correct

Mark 10.00 out of 10.00

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 !!!!

Construct the Routh table for the following closed-loop transfer function:

$T(S)=[14S-2]/[S^5+14S^4+4S^3+56S^2+4S+56]$

NOTE 1: Do not multiply nor divide any row by any factor!

NOTE 2: Do not leave any square without any answer, if it is Zero, then insert 0.

S^5	(1)	(2)	(3)
S^4	(4)	(5)	(6)
S^3	(7)	(8)	(9)
S^2	(10)	(11)	(12)
S^1	(13)	(14)	(15)
S^0	(16)	(17)	(18)

The value of **(1)**= 1 The value of **(2)** is: 4 The value of **(3)** is: 4

✔

One possible correct answer is: 1, 4, 4

The value of **(4)**= 14 The value of **(5)** is: 56 The value of **(6)** is: 56

✔

One possible correct answer is: 14, 56, 56

The value of **(7)**= 56 The value of **(8)** is: 112 The value of **(9)** is: 0

✔

One possible correct answer is: 56, 112, 0

The value of **(10)**= 28 The value of **(11)** is: 56 The value of **(12)** is: 0

✔

One possible correct answer is: 28, 56, 0

The value of **(13)**= 56 The value of **(14)** is: 0 The value of **(15)** is: 0

✔

One possible correct answer is: 56, 0, 0

The value of **(16)**= 56 The value of **(17)** is: 0 The value of **(18)** is: 0

One possible correct answer is: 56, 0, 0

For the **even polynomial**, the number of poles on the RHP is: 0 , on the LHP is: 0 and on the jw-axis is: 4

One possible correct answer is: 0, 0, 4

For the **other polynomial**, the number of poles on the RHP is: 0 , on the LHP is: 1 and on the jw-axis is: 0

One possible correct answer is: 0, 1, 0

For the **TOTAL polynomial**, the number of poles on the RHP is: 0 , on the LHP is: 1 and on the jw-axis is: 4

One possible correct answer is: 0, 1, 4

The closed loop system is:

(1) Stalbe, **(2)** Unstable, **(3)** marginally stable

answer with 1 or 2 or 3 only

your numeric answer is: 2

One possible correct answer is: 2

◄ Quiz #4

Jump to...

Quiz #6 ►