








| | | |
|--|---|---|
| Started on  Thursday, 8 May 2025, 11:00 AM | State  Finished | Completed on  Thursday, 8 May 2025, 11:08 AM |
| Time taken  8 mins 41 secs | Grade  8.00 out of 10.00 (80%) | |

Question 1

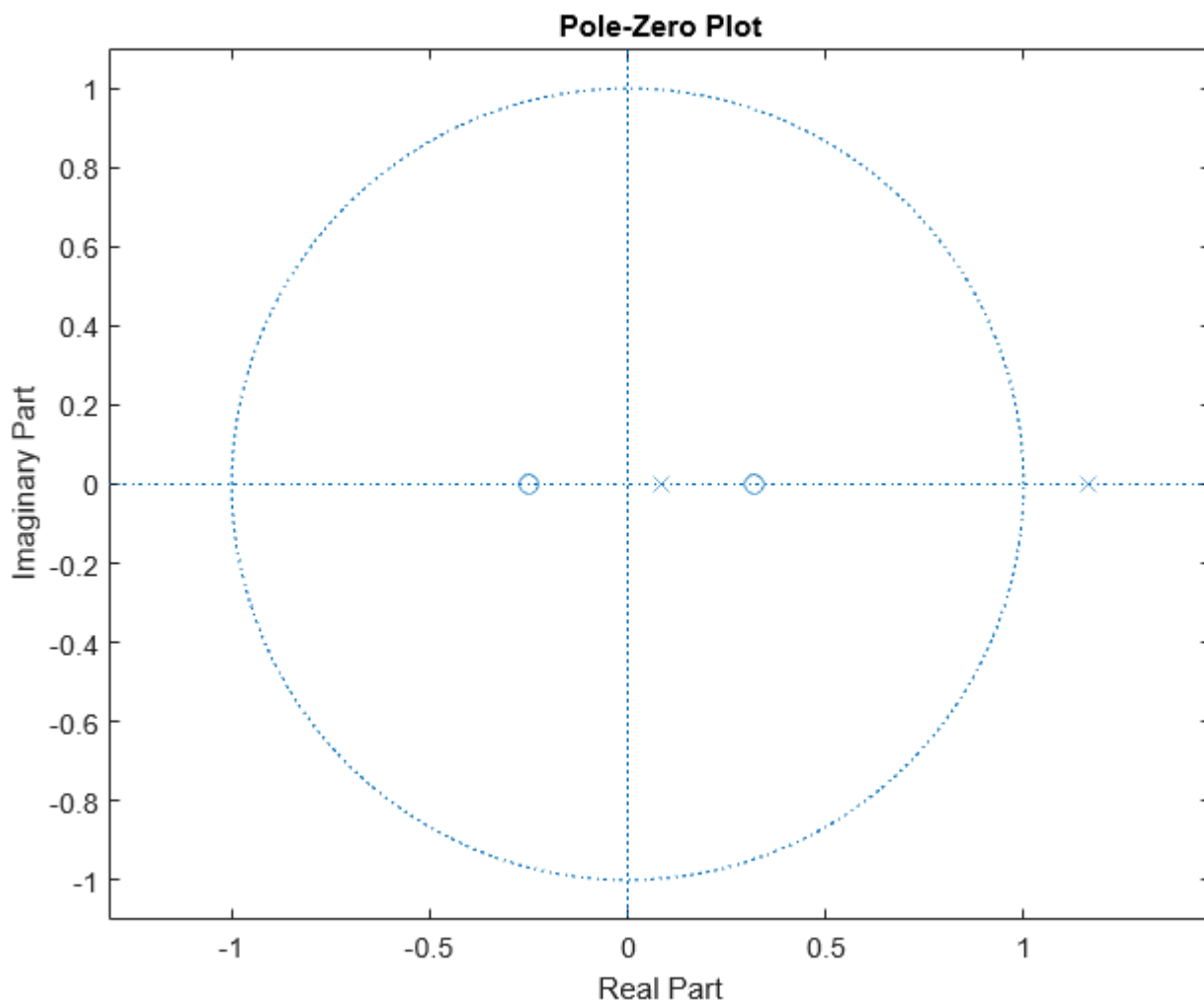
Flag question

Complete

Mark 2.00 out of 2.00

ECTE203_Q3 (copy)

This system is NOT stable.



Select one:

☒ True

☐ False

Question 2

Flag question

Complete

Mark 0.00 out of 2.00

ECTE203_Q3

Which option best describes the general format of impulse response?

$A = [1, 0.2, -0.5]$

$B = [1 \ 2.2]$

$n = 0:10$

- ☐ a. $x = (n==1);$
 $y = \text{impz}(B,A,x);$
- ☐ b. $y = \text{impz}(B,A,100);$
- ☐ c. $x = (n \geq 0);$
 $y = \text{stepz}(B,A,x);$
- ☒ d. $x = (n \geq 1);$
 $y = \text{filter}(B,A,x);$

Question 3

Flag question

Complete

Mark 2.00 out of 2.00

ECTE203_Q3 (copy)

Which of the following gives the correct formula to compute the length N of the output signal y when two discrete-time signals x and h are convolved using MATLAB's `conv(x, h)`?

- ☒ a. $\text{length}(x) + \text{length}(h) - 1$
- ☐ b. $\text{length}(x) * \text{length}(y)$
- ☐ c. $\text{length}(x) * \text{length}(h)$
- ☐ d. $\text{length}(x) - \text{length}(h) - 1$

Question 4

Flag question

Complete

Mark 2.00 out of 2.00

ECTE203_Q3

Given the length of x_in $[A, B]$ and $h[C, D]$, the range of convolution of x and h ($y = x * h$) will be _____.

- ☐ a. $[B, D]$
- ☐ b. $[A, D]$
- ☒ c. $[A+C, B+D]$
- ☐ d. $[A+B, C+D]$

Question 5

[Flag question](#)

Complete

Mark 2.00 out of 2.00

ECTE203_Q3

A system is stable when _____ .

- ☐ a. all zeros are in the unit circle
- ☐ b. at least 1 pole is inside the unit circle
- ☒ c. Magnitude of all poles are less than 1
- ☐ d. Magnitude of zeros are above 1

[Finish review](#)