



Started on 📅 Thursday, 22 May 2025, 10:50 AM	State 🔄 Finished	Completed on 🕒 Thursday, 22 May 2025, 10:54 AM
Time taken 🕒 4 mins 38 secs	Marks ✅ 3.00/5.00	Grade ✍️ 6.00 out of 10.00 (60%)

Question 1

Flag question

Complete

Mark 1.00 out of 1.00

ECTE203_Q5

The following noise with length of 200 can be generated via option _____.
w is a normally distributed with mean of 4 and variance of 3.

- ☐ a. $w = \text{sqrt}(4) * \text{randn}(1, 200) + 3;$
- ☒ b. $w = \text{sqrt}(3) * \text{randn}(1, 200) + 4;$
- ☐ c. $w = \text{sqrt}(3) * \text{randn}(1, 200) + \text{sqrt}(4);$
- ☐ d. $w = (3) * \text{randn}(1, 200) + 4;$

Question 2

Flag question

Complete

Mark 0.00 out of 2.00

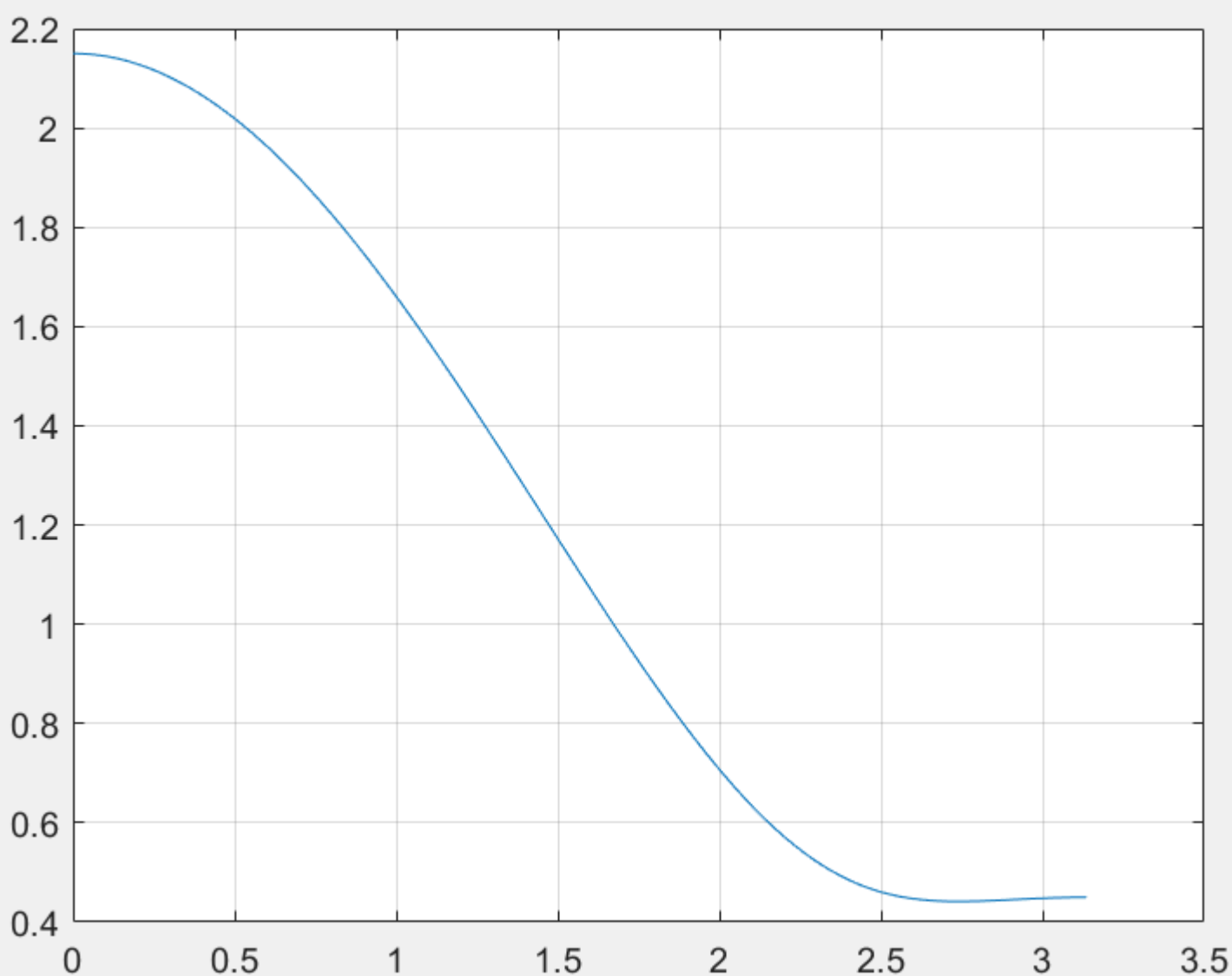
ECTE203_Q5

The result of this filter is given in the figure below.

$$B = [1 \ 0.85 \ 0.3];$$

$$A = [1 \ 0 \ 0];$$

Identify the type of the filter. This is the magnitude response.



☐ a. FIR, Low pass

☒ b. IIR, Low Pass

☐ c. IIR, High Pass

☐ d. FIR, High Pass

Question 3

Flag question

Complete

Mark 1.00 out of 1.00

ECTE203_Q5

The following operation is auto-correlation:

```
n = 0:0.1:10;
```

```
x = 5 * sin(2*pi*n*10 + pi/2);
```

```
y= (n>=2) - (n>=6);
```

```
[Rx,L] = xcorr(x);
```

Select one:

☒ True

☐ False

Question 4

[Flag question](#)

Complete

Mark 1.00 out of 1.00

ECTE203_Q5

The autocorrelation of a zero-mean white noise sequence with variance of 4, will generate a peak of _____ at 0.

- ☐ a. 16
- ☐ b. 2
- ☒ c. 4
- ☐ d. 8

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