Quiz #4

Due Mar 31 at 9:55am **Points** 100 **Questions** 9 **Available** Mar 31 at 9:35am - Mar 31 at 9:57am 22 minutes **Time Limit** 14 Minutes

This quiz was locked Mar 31 at 9:57am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	14 minutes	0 out of 100

Score for this quiz: **0** out of 100
Submitted Mar 31 at 9:50am
This attempt took 14 minutes.

Question 1 — 0 / 10 pts

What is the magnitude of the Fourier series of the following signal:

$y(t) = 3 + 2 \cdot \sin(20t) + 8 \cdot \cos(30t)$

at frequency 30 ?

You Answered 8

Correct Answers 4 (with margin: 0)

Question 2 — 0 / 10 pts

Transfer function of the system is

$H(s) = \frac{2}{s-1}$

Is system stable?

Correct Answer
- False

You Answered
- True

- It can not be determined

Question 3

0 / 10 pts

What is the value of the magnitude spectrum of the Fourier transform of the following modulated signal:

$y(t) = (3 + 2 \cdot \sin(20t) + 8 \cdot \cos(30t)) \cdot \cos(100t)$

at frequency 100 ?

You Answered: 8

Correct Answers: 1.5 (with margin: 0)

Question 4

0 / 10 pts

What is the value of the magnitude spectrum of the Fourier transform of the following signal:

$y(t) = (3 + 2 \cdot \sin(20t) + 8 \cdot \cos(30t)) \cdot \cos(100t)$

at frequency 90 ?

You Answered: 5

Correct Answers: 0 (with margin: 0)

Question 5

0 / 10 pts

What is the value of the magnitude spectrum of the Fourier transform of the following signal:

$y(t) = (3 + 2 \cdot \sin(20t) + 8 \cdot \cos(30t)) \cdot \cos(100t)$

at frequency 80 ?

You Answered: 0.548

Correct Answers: 0.5 (with margin: 0)

Question 6

0 / 10 pts

What is the value of the phase of the Fourier transform of the following signal:

$y(t) = (3 + 2 \cdot \sin(20t) + 8 \cdot \cos(30t)) \cdot \cos(100t)$

at frequency -70 ?

You Answered 70

Correct Answers 0 (with margin: 0)

Question 7

0 / 10 pts

A band pass filter has cutoff frequencies 10 Hz and 30 Hz.

What is the magnitude of the transfer function at frequency 18 Hz?

You Answered 2

Correct Answers 1 (with margin: 0)

Question 8

0 / 10 pts

A band stop filter has cutoff frequencies 10 Hz and 30 Hz.

What is the magnitude of the transfer function at frequency 9 Hz?

You Answered 0.901

Correct Answers 1 (with margin: 0)

Unanswered

Question 9

0 / 20 pts

The following signal

$$y(t) = 2 + 4 \cdot \sin(20t) + 6 \cdot \cos(30t)$$

is sampled at frequency 200.

What is the value of the magnitude of the Fourier transform of the sampled signal at frequency 220?

You Answered

Correct Answers

2 (with margin: 0)

Quiz Score: **0** out of 100