



Unit 6 - Week 5

Course outline

How to access the portal

Week 1

Week 2

Week 3

Week 4

Week 5

- Lecture 25: Fourier Series Expansion
- Lecture 26: Fourier Series Expansion - Continuation
- Lecture 27: Fourier Integral
- Lecture 28: Fourier Integral - Continuation
- Lecture 29: Fourier Transform
- Lecture 30: Fourier Transform - Continuation
- Quiz : Week 5 Assignment
- Week 5 Assignment Solution

Week 6

Week 7

Week 8

Week 5 Assignment

The due date for submitting this assignment has passed. **Due on 2017-02-28, 23:59 IST**
As per our records you have not submitted this assignment.

1) While determining the Fourier Integral of a non periodic function, what is the assumed time period of the function? **1 point**

- 1
- π
- 2π
- ∞

No, the answer is incorrect.

Score: 0

Accepted Answers:

∞

2) During FFT, what happens to frequency resolution with increase in the time period of a function? **1 point**

- The gap between adjacent frequency components increases.
- The gap between adjacent frequency components decreases.
- The gap between adjacent frequency components remains the same.
- The gap between adjacent frequency components increases exponentially.

No, the answer is incorrect.

Score: 0

Accepted Answers:

The gap between adjacent frequency components decreases.

3) Fourier series can be used to represent _____. **1 point**

- Periodic functions.
- Non periodic functions
- Only Sine functions.
- Only Cosine functions.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Periodic functions.

4) If a function $f(t)$ have a time period T , then, which of the following options represents Fourier series expression for $f(t)$? **1 point**

-
-
-



No, the answer is incorrect.

Score: 0

Accepted Answers:

5) A periodic function has shown in the figure below. Find out the time period of the function.

1 point

- 1
- 1.5
- 2
- 4

No, the answer is incorrect.

Score: 0

Accepted Answers:

2

6) Consider a non periodic function $f(t)$. Which of the option represents the Fourier integral for $f(t)$?

1 point

-
-
-
-

No, the answer is incorrect.

Score: 0

Accepted Answers:

7) Consider we are representing a piecewise continuous and differentiable periodic function using Fourier series. At the point of discontinuity, Fourier series shows large oscillations which are called _____.

1 point

- Gibbs phenomenon.
- Fourier phenomenon.
- Fourier-Rayleigh phenomenon.
- Rayleigh phenomenon.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Gibbs phenomenon.

8) What is/are the characteristics of a signal which can be extracted using FFT?

1 point

- Only magnitude of the signal.
- Only phase of the signal.
- Both magnitude and phase of the signal.
- Magnitude, phase and frequency components of the signal.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Magnitude, phase and frequency components of the signal.

Previous Page

End

© 2014 NPTEL - Privacy & Terms - Honor Code - FAQs -

A project of



In association with



Funded by



Powered by

