

X



reviewer4@nptel.iitm.ac.in ▼

Courses » Modern Digital Communication Techniques Announcements Course Ask a Question Progress FAQ

Unit 7 - Week 5

Register for Certification exam

Course outline

How to access the portal

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

- Lecture 21 : Characterization of Signals and Systems (Contd.)
- Lecture 22 : Characterization of Signals and Systems (Contd.)
- Lecture 23 : Characterization of Signals and Systems (Contd.)
- Lecture 24 : Memoryless Modulation
- Lecture 25 : Memoryless Modulation (Contd.)
- Tutorial
- Quiz : Week 5 Assignment 5
- Feedback for Week 5

Week 6

Week 7

Week 5 Assignment 5

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-03-06, 23:59 IST

1 point

1) We pass white noise through a filter with an impulse response $h(t) = 4e^{-5t}u(t)$ where,

$$u(t) = \begin{cases} 1, & t \geq 0 \\ 0, & \text{elsewhere} \end{cases}$$

Find the autocorrelation of the output of the filter. Assume that

$$R_{XX}(t) = \frac{N_0}{2} \delta(t).$$

a. $R_{YY}(t) = \frac{4N_0e^{-5|t|}}{5}$

b. $R_{YY}(t) = \frac{8N_0e^{-5|t|}}{5}$

c. $R_{YY}(t) = \frac{3N_0e^{-4|t|}}{5}$

d. $R_{YY}(t) = \frac{4N_0e^{-4|t|}}{5}$

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers:

a.

- 2) a.
- b.
- c.
- d.

1 point

No, the answer is incorrect.

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

A project of



In association with



Funded by



Powered by

Week 12

DOWNLOAD VIDEOS

Assignment Solution

- c.
- d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

- 4) a.
- b.
 - c.
 - d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

- 5) a.
- b.
 - c.
 - d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

- 6) a.
- b.
 - c.
 - d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

- 7) a.
- b.
 - c.
 - d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
c.

- 8) a.
- b.
 - c.
 - d.

No, the answer is incorrect.
Score: 0

Accepted Answers:
b.

- 9) a.
- b.
 - c.
 - d.

1 point

1 point

1 point

1 point

1 point

1 point

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

- 10) a.
 b.
 c.
 d.

1 point



No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

- 11) a.
 b.
 c.
 d.

1 point



No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

- 12) a.
 b.
 c.
 d.

1 point

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

- 13) a.
 b.
 c.
 d.

1 point

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

- 14) a.
 b.
 c.
 d.

1 point

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

15)

1 point

The minimum distance between two pulse amplitude modulated signals is $2d$. The modulator maps a group of k bits to the corresponding symbol. The amplitudes of the symbols follow the rule $A_m = (2m - 1 - M)d$, where $1 \leq m \leq M$, and M is the number of symbol levels. The maximum distance between any two symbols is -

- a. $5d$
- b. $2^k d$
- c. $(2^k - 1)d$
- d. $2(2^k - 1)d$

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

Previous Page

End