Dashboard / My courses / Term II(2020-21) / T2-20-ESS103 / Course Activities / Quiz 1

Started on	Thursday, 28 January 2021, 11:52 AM
State	Finished
Completed on	Thursday, 28 January 2021, 12:22 PM
Time taken	30 mins 1 sec
Marks	14.00/14.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct
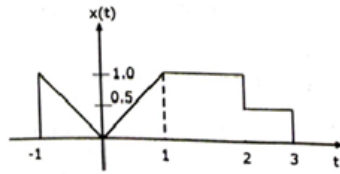
Mark 1.00 out of 1.00

The signal $x(t) = e^{-2t}u(t)$ is

- a. power signal with $P = \dfrac{1}{4}$

- b. Energy signal with $E = \dfrac{1}{4}$ ✔

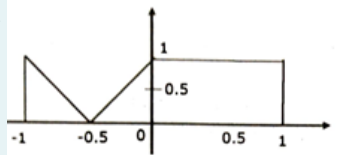- c. power signal with $P = 0$

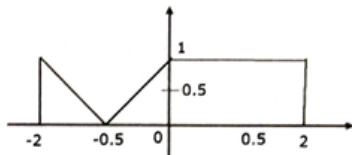- d. Energy signal with $e = 0$

Question **2**

Correct

Mark 1.00 out of 1.00

Given $x(t)$ as

Find $x(2t + 1)$

○ 1.

○ 2.

○ 3.

◉ 4.
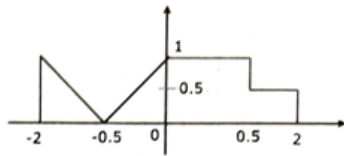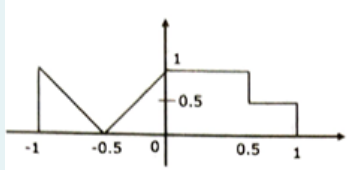   ✔
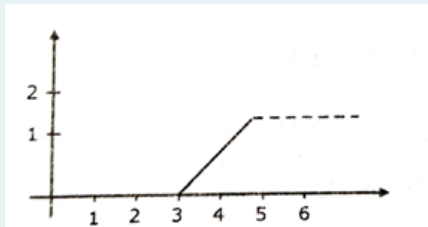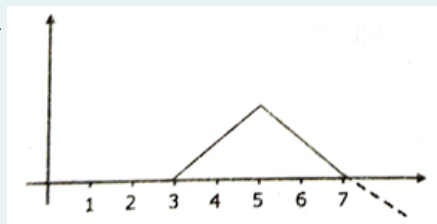
Question **3**

Correct

Mark 1.00 out of 1.00

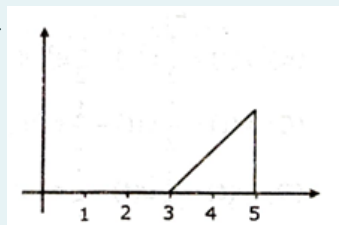A signal is given by $x(t) = r(t-3) - r(t-5)$.

This signal is represented by

- a.

- b.

- c.

None of these ✔

- d.

Question **4**

Correct

Mark 1.00 out of 1.00

Determine the period of the signal given below.

$$x(n) = \cos \frac{\pi n}{4} \cos \frac{\pi n}{3}$$

- a. 24 ✔
- b. 12
- c. 4
- d. 3

Question **5**

Correct

Mark 1.00 out of 1.00

Given

$$x_1(t) = 2\sin \pi t + 3\cos 3\pi t$$
$$x_2(t) = 2\cos 5t + 5\cos 7t$$

Then

○ a. $x_1(t)$ is periodic, $x_2(t)$ is not periodic

◉ b. $x_1(t)$ and $x_2(t)$ both are periodic   ✔

○ c. $x_1(t)$ is not periodic, $x_2(t)$ is periodic

○ d. $x_1(t)$ and $x_2(t)$ both not periodic

Question **6**

Correct

Mark 1.00 out of 1.00

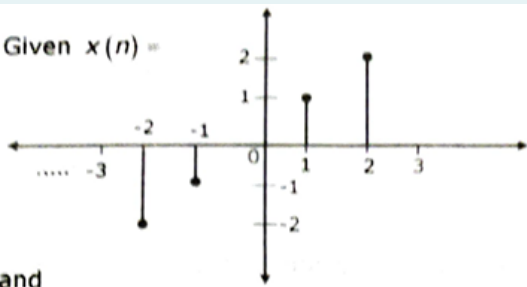Average power and energy of unit step sequence, $u(n)$ respectively is

○ 1. $\dfrac{1}{2}$ and $\dfrac{1}{2}$

○ 2. 1 and ∞

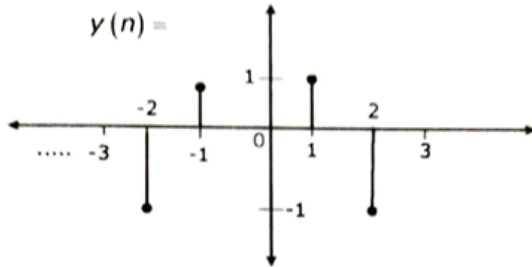◉ 3. $\dfrac{1}{2}$ and ∞ ✔
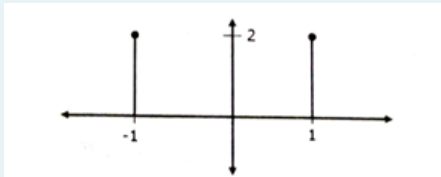
○ 4. 1 and 1

Question **7**
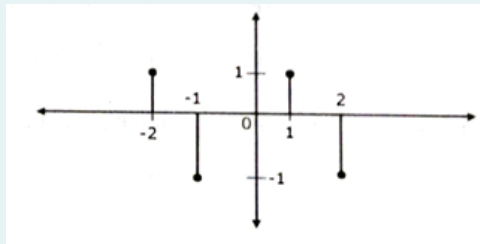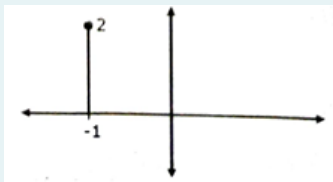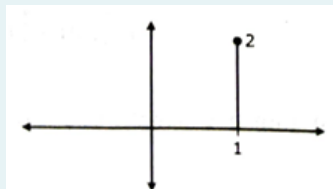
Correct

Mark 2.00 out of 2.00

Given $x(n) =$

and

$y(n) =$

Then $x(2-n)y(n) + y(2-n)x(n)$ will be:

○ a.

○ b.

○ c.

◉ d.

    ✔

Question **8**

Correct

Mark 1.00 out of 1.00

Consider $x(n) = \{1, 0, -2, -\underset{\uparrow}{3}, 0, 1, 2, 3, 4\}$ then $x(2n)$ will be:

- a. $\{1, -2, 0, 2, 4\}$

- b. None of these

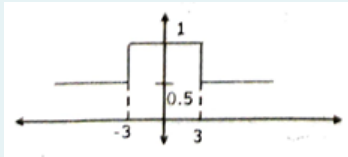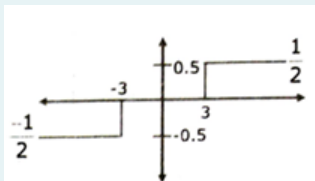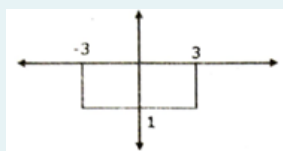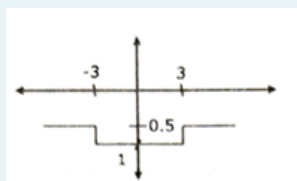- ⦿ c. $\{0, -3, 1, 3\}$ ✔

- d. $\{0, -2, 2, 4\}$

Given $x(t) = u(t + 3)$. Even and Odd part of this signal will be:

a.

b.

c.

None of these

d.
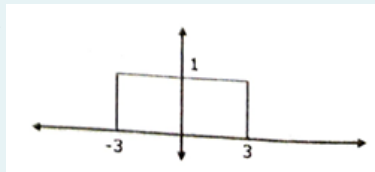
Question **10**
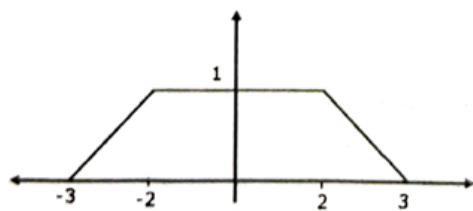
Correct

Mark 1.00 out of 1.00

$u(n) + u(-n)$ is equal to

- a. 2

- b. $1 + \delta(n)$ ✔
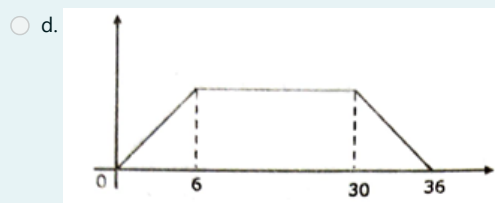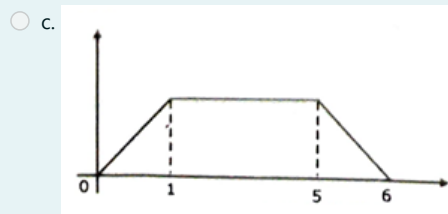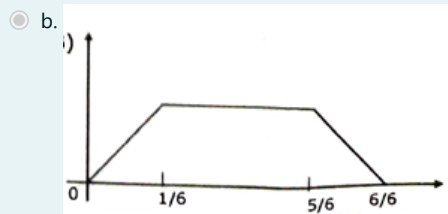
- c. $2 + \delta(n)$

- d. 1

Question **11**

Correct

Mark 1.00 out of 1.00

Consider a signal $x(t)$ as shown in figure.

Now sketch of $y(t) = x(6t - 3)$

- a. None

- b.

✔

- c.
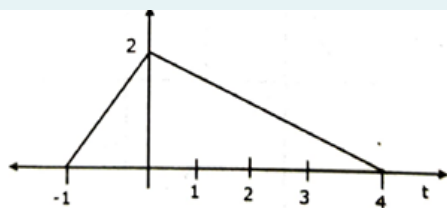

- d.

Question **12**

Correct

Mark 2.00 out of 2.00

$x(t)$ is given as

The value of 't' for which $x\left(-2t + \dfrac{3}{2}\right)$ will become zero.

○ a. **-1.25, 1.25**   ✔

○ b. **-1.25, 2.5**

○ c. **2.5, -2.5**

○ d. **1.25, -2.5**

◄ Notes Folder

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Quiz 2 ►