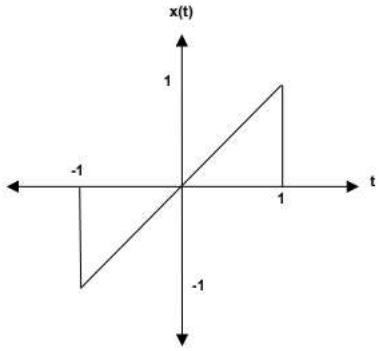
Started on	Friday, 3 September 2021, 8:30 AM
State	Finished
Completed on	Friday, 3 September 2021, 9:32 AM
Time taken	1 hour 2 mins
Overdue	2 mins 1 sec

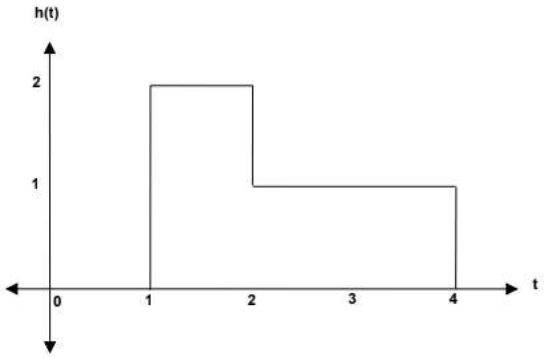
Question **1**

Not answered

Marked out of 2.00

Determine the convolution of signal x(t) and h(t) as shown in figure. What will be the value of convolution output at t = 3.6? Enter the answer upto 3 decimal place.





Your answer is incorrect.

Question **2**

Complete

Marked out of 2.00

Determine a discrete time convolution for signal x[n] and h[n].

x[n] will be your Roll no. Example:- for roll no 201081001, x[n] will be {2,0,1,0,8,1,0,0,1}. h[n] is {-2,-1, 0,1, 2}.

Enter the output sequence y[n] as:

{a,b,c,...,z}

{-4,-2,0,2,0,-2,0,2,2,-1,0,1,1}

Comment:

-4 -2 0 2 0 -2 0 2 2 -1 0 1 2

Question **3**

Complete

Marked out of 1.00

From the output y[n] obtained in the discrete convolution question. Compute the energy and power of the signal.

Write answer as following:

Energy=a

Power=b

```
Energy = 39
Power = 0
```

Comment:
energy=42

Question **4**

Complete

Marked out of 1.00

From the output y[n] of the discrete convolution queston. y[n] is

Select one:

- a. Energy signal and Periodic signal
- b. Energy signal and Aperiodic signal
- c. Power signal and Periodic signal
- d. Power signal and Aperiodic signal

Your answer is correct.

Question **5**

Complete

Marked out of 2.00

For a discrete time signal x[n]. Where x[n] is your roll no. For. eg- for roll no 201081001 will be {2,0,1,0,8,1,0,0,1} .

Assume x[0] is the 5th index of your roll no. For the given x[n], x[0] will be 8.

Find the even and odd component of the signal. For answer write:

Odd-{a,b,...,z}

Even-{a',b',...,z'}

```
odd - {2,0,0,0,2,0,0,0,1}
even - {0,0,0,0,0,0,0,0,0}
```

Comment:
odd =

0.5000 0 0 0 0 0 0 0 -0.5000

even =

1.5000 0 0 0 2.0000 0 0 0 1.5000

Question **6**

Not answered

Marked out of 1.00

For a discrete time signal x[n]. Where x[n] is your roll no. For. eg- for roll no 201081001 will be {2,0,1,0,8,1,0,0,1} .

Assume x[0] is the 5th index of your roll no. For the given x[n], x[0] will be 8.

Find the output y[n] for $\sum_{-\infty}^{\infty} \delta[n]x[n]$

Question **7**

Complete

Marked out of 1.00

Which of the following are BIBO stable system?

Select one or more:

- a. $y(t) = e^{-t}x(t)$
- b. $y(t) = \frac{d}{dt}x(t)$
- c. $y(n) = e^{[-x(n)+j]n}$
- d. None of these.

Your answer is incorrect.

◄ Lecture-8 Notes

Jump to...

Lecture-9 Notes ►