T-1 Examination-September-2021 Digital Signal Processing (18B11EC512)

Note:

1. Total questions are 22.

2. Half mark will be awarded for each MCQ (18 MCQ for 9 marks).

3. One and half mark will be awarded for each short answer type question (4 Questions for 1.5 marks).

4. On your camera and mic during examination

5. Maximum Marks: 15

6. Maximum time: 1hr.

sunildatt.sharma@juitsolan.in Switch accounts

Draft restored

Your email address will be recorded when you submit this form

---

The signal x(n)=exp(j*2*n) is a ....signal

○ periodic

○ aperiodic

○ both of the above

○ None of the above

What are ways of discrete time signal representation?

Your answer

If x(n)=[1 , 1 , 1 , 1 , 1 , 1 , 1 , 1] and h[n]= [1 1] then y(n)=x(n)*h(n) is

○ [2,1,2,2,2,2,3,3]

○ [1,2,2,4,3,2,2,1]

○ [1,2,2,2,2,2,2,1]

○ [1,2,2,4,4,2,2,1]

---

x(n)δ(n-k) is equal to

○ x(K)

○ x(n)

○ x(n-k)

○ None of the above

What is the linear time invariant system discrete time system?

Your answer

---

y(n)=(0.5^n)u(n) is

○ stable system

○ unstable system

○ Both of the above

○ None of the above

y(n)=x(2n) is

○ Non-Causal system

○ Causal system

○ Anti-causal system

○ None of the above

The z trans form of the unit impulse sequence is

○ one

○ z

○ 1/z

○ 1/(1-z)

The z trans form of the unit step sequence is

○ 1/z-1

○ z

○ z/z-1

○ 1/(1-z)

The signal x(n)=cos(n*pi/4)u(n) is a

○ Power signal

○ Enery signal

○ Both of the above

○ None of the above

y(n)=x(-n) is

○ time variant system

○ time invariant system

○ Both of the above

○ None of the above

Energy of the signal x(n)=sin(n*pi/4) is

○ 0

○ Infinity

○ 1/2

○ 1

Z Transform of the signal x(n)=-u(-n-1) is

○ z/z-1

○ 1/(1-z^-1)

○ Both of the above

○ None of the above

The summation of the unit impulse for the range -infinity to 'n' is.........................

○ Unit step sequence

○ Unit sample sequence

○ both of the above

○ None of the above

Digital system realization is not cheaper than the realization of continuous time system.

○ True

○ false

The fundamental period of the signal x(n)=cos(n*2*pi/3) is a

○ 12

○ 9

○ 3

○ 6

What is the Region of Convergence?

Your answer

System complexity is not the limitation of the DSP system

○ True

○ false

Region of convergence does not contains any ....

○ zeros

○ poles

○ poles and zeros

○ None of the above

if the x(z)=1 is a z-transform of the x(n) then roc is

○ does not exist

○ entire z plane

○ no place in z plane

○ None of the above

Population modulation is not an example of the discrete time system

○ True

○ false

Explain the types of systems.

Your answer

Submit   Clear form