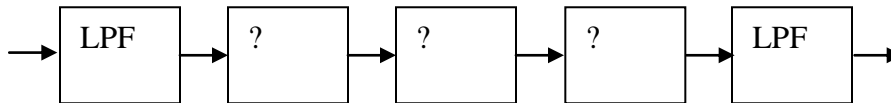


Student Name:

Student No#

1. Write the name of the blank blocks in the following digital signal processing system.



2. What is quantization error?

Ans:

3. If Ω_N is Nyquist frequency and Ω_S is sampling frequency then the relation between Ω_N and Ω_S is :
4. A signal has 20 samples. If samples are decimated by 2, then how many sample will remain? Show by figure for a sine wave.

Ans:

5. The equation of Fourier Transform is $F(\omega)=$
6. Draw diagram of the following:

$$\text{sinc} \xleftrightarrow{F} \text{box}$$

7. Write the equation of convolution in time domain.
 $y(t)= f(t)*g(t)=$
8. Explain what does stand for the name FIR filter?
9. Explain what does stand for the name IIR filter?
10. A signal is given by $y(t)=\sin(2\pi*1000t)$.

What is the value of $y(t)$ at $t=0$, $t=0.00025$, $t=0.0005$. plot y vs t .