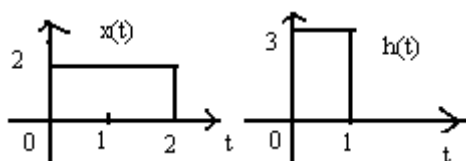


Haldia Institute of Technology	
Subject:-B.Tech in ECE	
Assignment – III	3 rd sem.
Paper Name: SIGNALS AND SYSTEMS	Paper Code: EC303

1. Find the convolution of the following signals given below $y(t)=x(t)*h(t)$



[CO2]

2. Show by GRAPHICAL METHOD the convolution sum of the sequences given

below $x(n)= \begin{bmatrix} 1 & 2 & -2 & 1 \end{bmatrix}$ and $h(n)= \begin{bmatrix} 1 & 2 & 1 & 1 \end{bmatrix}$ [CO2]

3. State the Sampling theorem for low pass signal. What is aliasing effect? How we overcome from this effect? [CO5]

4. Define Nyquist rate ?Determine the Nyquist rate and Nyquist interval of the following signals-i) $5 \sin(40\pi t)\cos(300\pi t)$
ii) $10 \cos(400\pi t)+6 \sin(640\pi t)$. [CO5]

5.Short note on i)Auto correlation
ii)Cross correlation

[CO1.5]