

CONTINUOUS INTERNAL EVALUATION- 1

	$x[n]=\delta[n+1]-\delta[n]+\delta[n-3]$ and $h[n]=\delta[n]-\delta[n-2]$ Sketch the resulting signal.			
c	Following signals represent input and impulse response of a continuous-time Linear and Time-Invariant (LTI): obtain the output for the applied input. $x(t)=u(t)-u(t-3)$ $h(t)=e^{-2t}[u(t+1)-u(t-1)]$	7	L3	CO2
OR				
4 a	Given $x[n]=u[n]-u[n-5]$, be the input signal applied to a Linear and Time-Invariant (LTI) discrete-time system and $h[n]=a^n(u[n]-u[n-7])$, be the impulse response of the system. Obtain the output signal, $y[n]$.	10	L3	CO2
b	Determine whether the following systems represented by input-output relations are Time-Invariant and Invertible: (i) $y(t)=x\left(\frac{t}{2}\right)$ ii) $y(t)=x(2t+3)$ iii) $y[n]=nx[n]$	8	L3	CO1
c	The input signal $x(t)=e^{-t}u(t)$ to a LTI system whose impulse response is given by $h(t)=u(t)$ Calculate the output $y(t)$.	7	L2	CO2