## Digital Signal Processing - Quiz 2 (Fall 2020) CLO-2 (01/01/2021)

Start Time: **05:00am,**

Time for solving: **20 minutes**

End Time for submission: **05:20am**

1)     Find the convolution of x[n] and h[n] given bellow,

$$h[n] = U\delta(n+1) - T\delta(n) + U\delta(n-1)$$

$$x[n] = \begin{cases} T, & n = 0, 2 \\ U, & n = 1, 3 \\ 0, & otherwise \end{cases}$$

Is the system given by h[n] a stable system? Is h[n] a causal or non-causal system?.

**(1+2 Marks)**

**Where;**

**'U' is the unit place digit of your registration numbers. If the unit place digit is zero then use U=5.**

**'T' is the tens place digit of your registration numbers. If the tens place digit is zero then use T=5.**