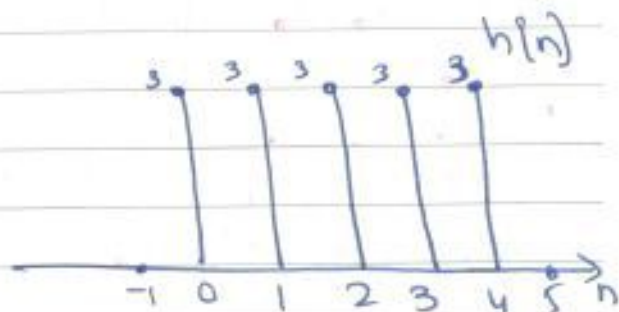
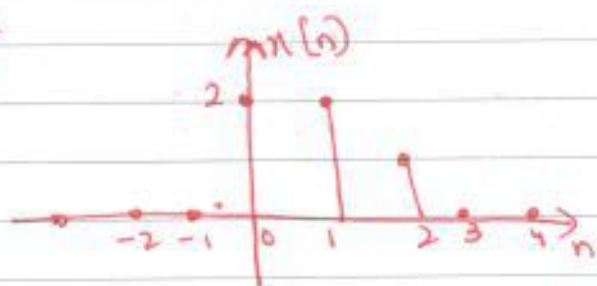


Assignment #2

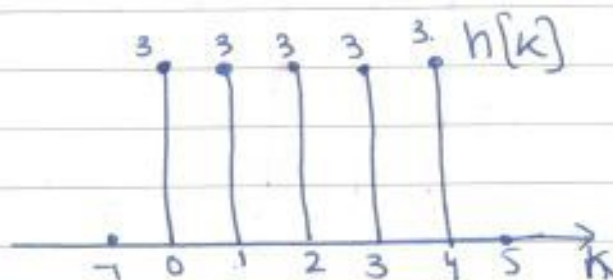
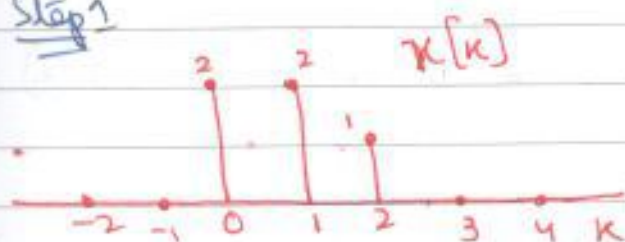
SOLUTION

Q#2



Solve

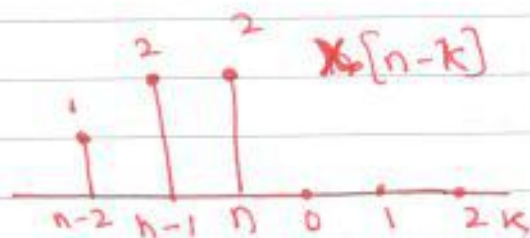
Step 1



Step 2

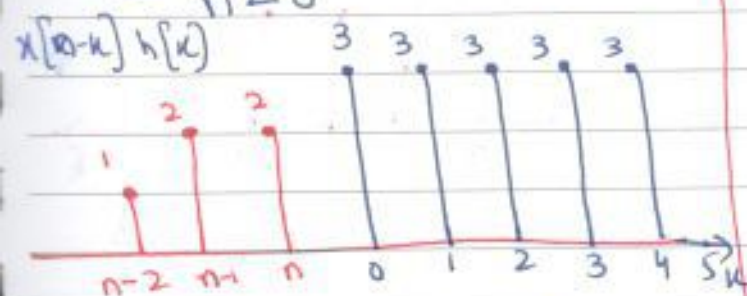


\Rightarrow



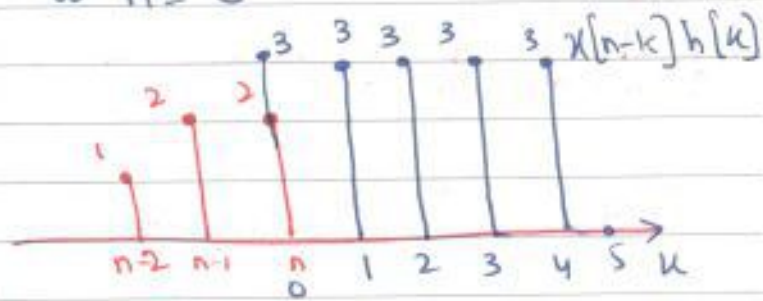
Step 3

$n < 0$

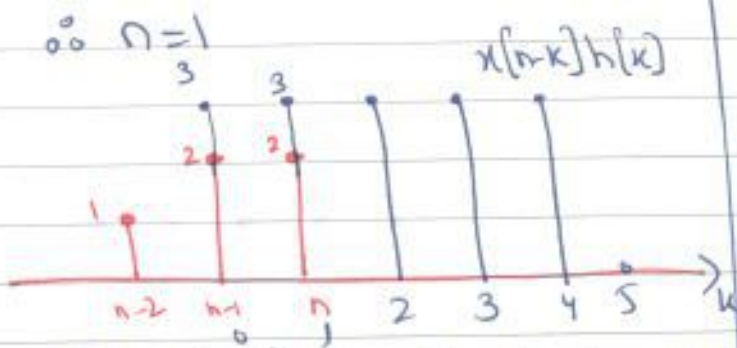


$y[n] = 0$, no overlapping

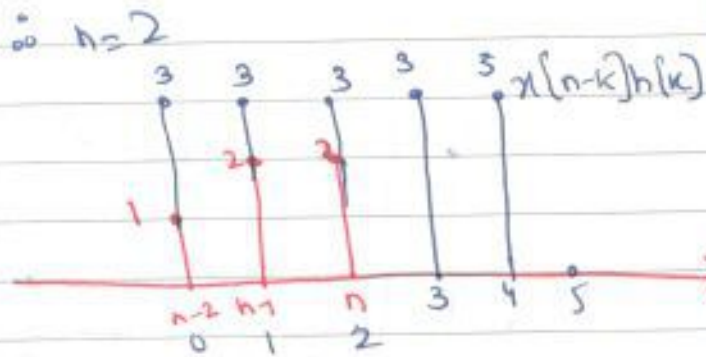
$\infty \quad n = 0$



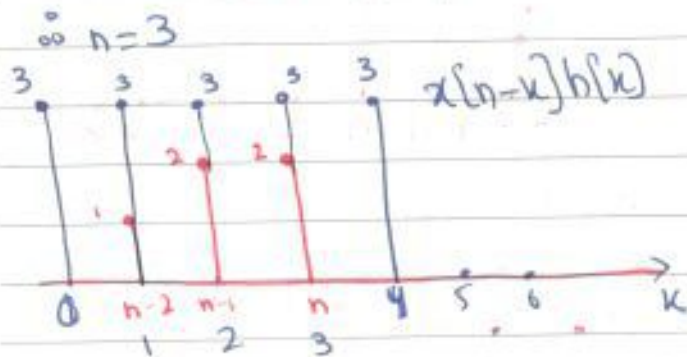
$$y[0] = (3 \times 2) + 0 + 0 \Rightarrow 6$$



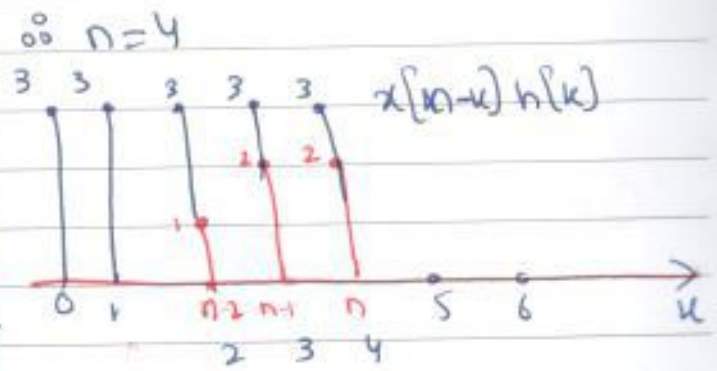
$$y[1] = (3 \times 2) + (3 \times 2) = 6 + 6 \Rightarrow 12$$



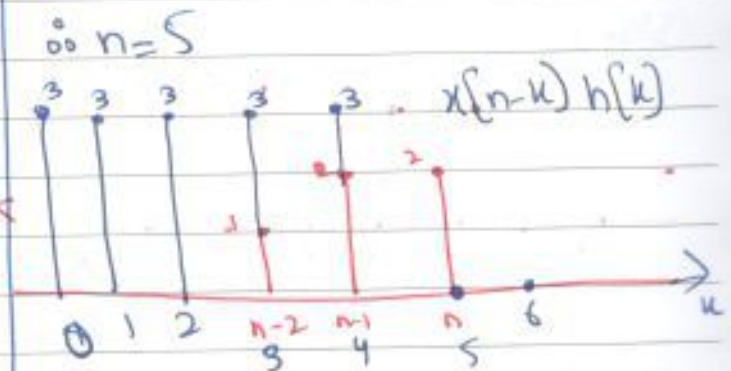
$$y[2] = (3 \times 2) + (3 \times 2) + (3 \times 1) = 6 + 6 + 3 = 15$$



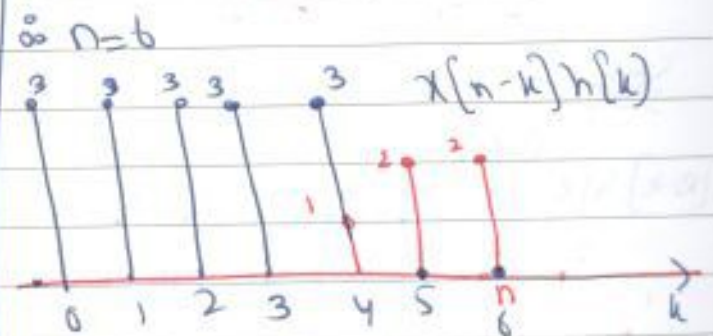
$$y[3] = (0) + (3 \times 1) + (3 \times 2) + (3 \times 2) + 0 \Rightarrow 3 + 6 + 6 \Rightarrow 15$$



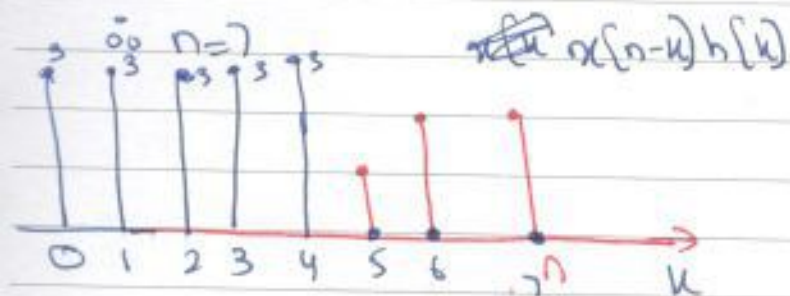
$$y[4] = (3 \times 1) + (3 \times 2) + (3 \times 2) = 15$$



$$y[5] = (3 \times 1) + (3 \times 2) + (2 \times 0) = 3 + 6 \Rightarrow 9$$



$$y[6] = (3 \times 1) + 0 + 0 \Rightarrow 3$$



$y[7] = 0$, no overlapping

$$y[n] = \begin{cases} 0 & , n < 0 \\ 6 & , n = 0 \\ 12 & , n = 1 \\ 15 & , n = 2 \\ 15 & , n = 3 \\ 15 & , n = 4 \\ 9 & , n = 5 \\ 3 & , n = 6 \\ 0 & , n = 7 \end{cases}$$

