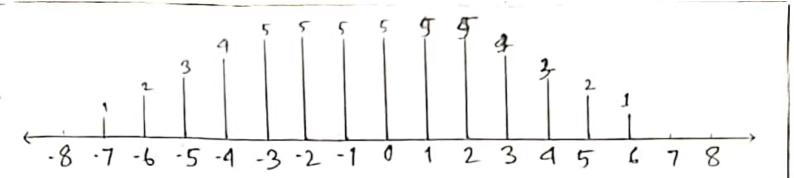
Lab Assignment fore Simple Shift told and Scaling Riyad Moreshed Shoeb Roll: 1603013 CSE 4104

(river a signal $x \in \{1, 2, 3, 4, 5, 4, 3, 2, 1, 0, -- \}$ Find— 1. y(m) = x(m-2) + x(m+3)2. y(m) = x(m-2) + x(m+3)

Solution

 $x(n) = \{-..., 0, 1, 2, 3, 4, 5, 4, 3, 2, 1, 0, ...\}$ $\Rightarrow x(n-2) = \{-..., 0, 1, 2, 3, 4, 5, 4, 3, 2, 1, 0, ...\}$ $\Rightarrow x(2n-2) = \{-..., 0, 1, 3, 5, 3, 1, 0, ...\}$ $and, x(n+3) = \{-..., 0, 1, 2, 3, 4, 5, 4, 3, 2, 1, 0, ...\}$ $\uparrow \uparrow$ $0 y(n) = x(n-2) + \frac{1}{2}x(n+3)$ $= \{-..., 0, 1, 2, 3, 4, 5, 5, 5, 5, 5, 5, 4, 3, 2, 1, 0, ...\}$



$$0$$
 $y(m) = x(2m-2) + x(m+3)$
= $\{..., 0, 1, 2, 3, 4, 5, 4, 4, 5, 6.3, 1, 0, ...\}$

