

Problem - 6

Direct form realisation of FIR filter

$$H(z) = 1 + 2z^{-1} - 3z^{-2} - 4z^{-3} + 5z^{-4}$$

$$H(z) = \frac{Y(z)}{X(z)} = 1 + 2z^{-1} - 3z^{-2} - 4z^{-3} + 5z^{-4}$$

$$Y(z) = X(z) [1 + 2z^{-1} - 3z^{-2} - 4z^{-3} + 5z^{-4}]$$

$$Y(z) = X(z) + 2z^{-1}X(z) - 3z^{-2}X(z) - 4z^{-3}X(z) + 5z^{-4}X(z)$$

