(2) Notch filter

$$H(\Omega) = \frac{(1 - e^{-j(\Omega_0 + \Omega)})(1 - e^{-j(\Omega - \Omega_0)})}{(1 - q e^{-j(\Omega_0 + \Omega)})(1 - q e^{-j(\Omega - \Omega_0)})}$$

$$Y(\Omega) = H(\Omega)X(\Omega), \quad \Omega_0 = \frac{2 \cdot 275.6181\pi}{22050}$$

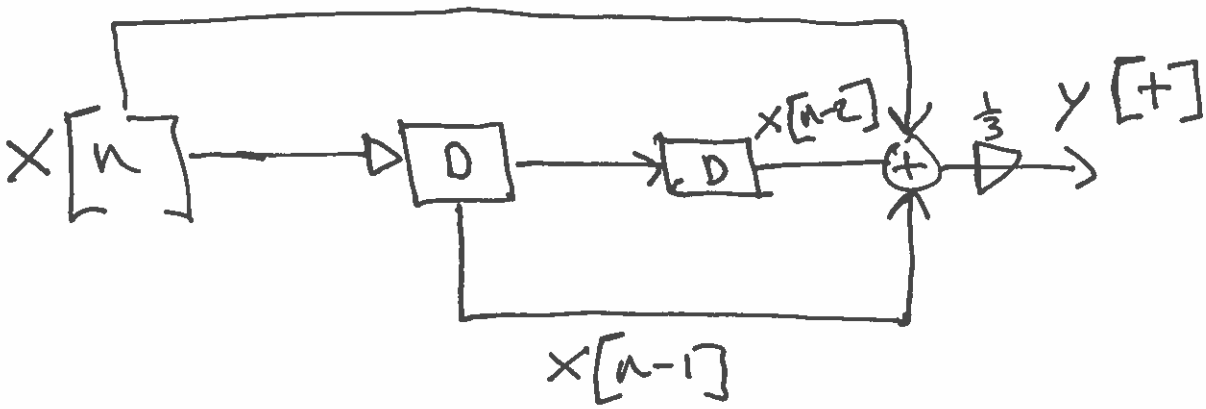
$$\Omega_0 =$$

③

$x(t) = e^{-\frac{t}{\tau}} u(t)$ $\quad \tau > 0$

$u(t) = \begin{cases} 1 & \text{if } t \geq 0 \\ 0 & \text{otherwise} \end{cases}$

(5)



(4)