

① Write down the value of the following discrete-signal samples, assuming the commonly used notation:

(a) $u[3] =$ (5 points
1 point each)

(b) $u[4] + \delta[3] + 3\delta[0] =$

(c) $u[-25] =$

(d) $u[-67] + u[67] =$

(e) $\delta[-3] + \delta[0] + \delta[3] =$

② Find the impulse response $h[n]$ for the following and state whether it is an IIR system or FIR system.

$$y[n] = x[n] - 2x[n-2] + x[n-3] \quad (5 \text{ points})$$