

2. b

$$h(0) = 2^0 = 1$$

$$h(1) = 2^1 = 2$$

$$h(2) = 2^2 = 4$$

$$h(3) = 2^3 = 8$$

$$\therefore H[K] = 1 + 2e^{-\frac{2K2\pi}{4} \cdot 1}$$

$$+ 4e^{-\frac{2K2\pi}{4} \cdot 2} + 8e^{-\frac{2K2\pi}{4} \cdot 3}$$