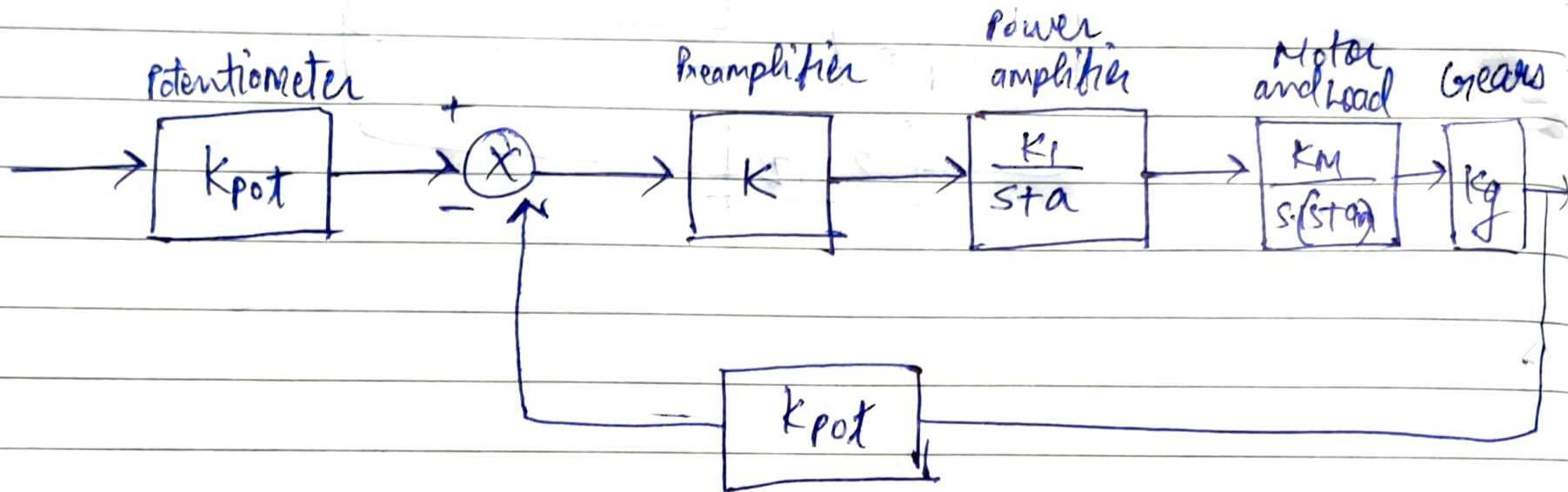
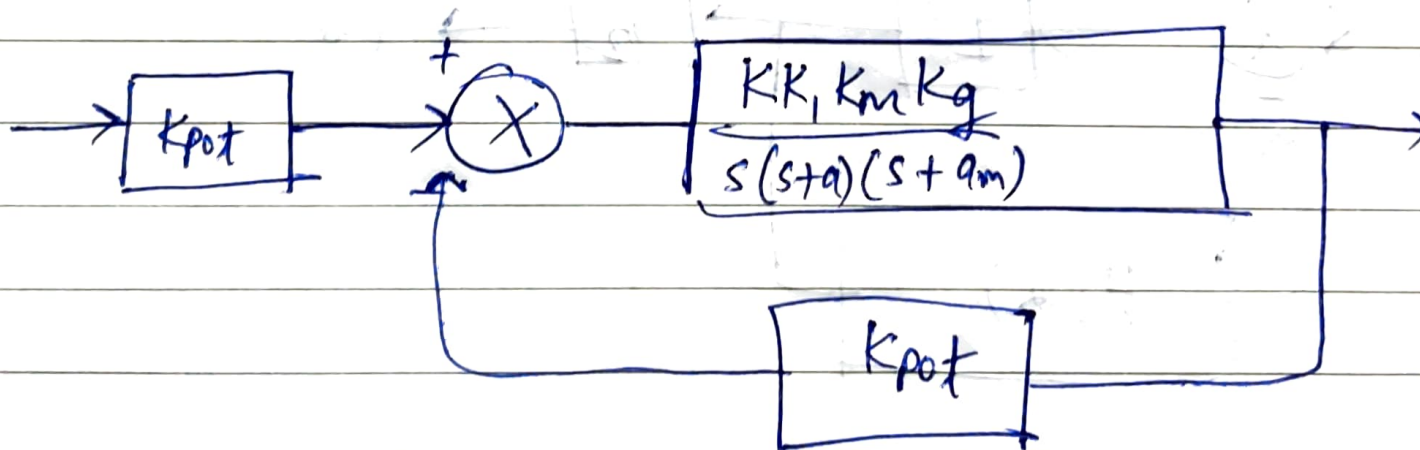


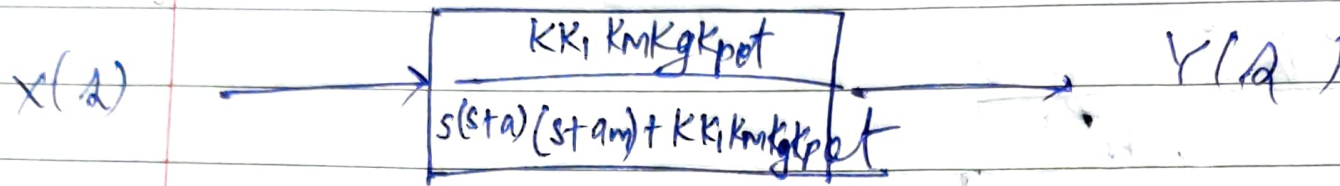
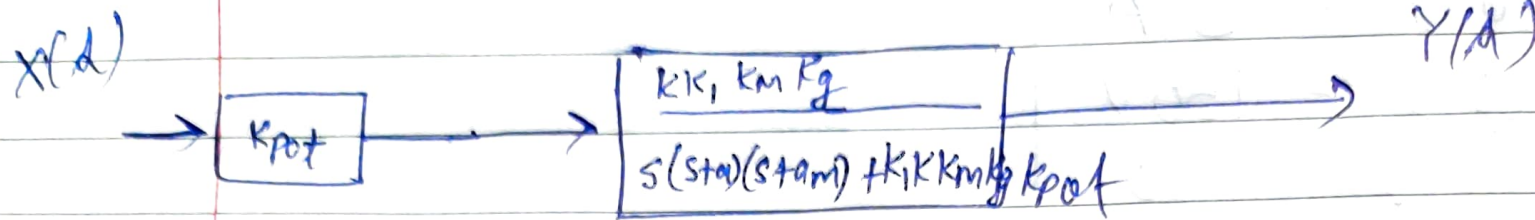
Q1-



Ans

①





$$X(s) \times \frac{K_i K_m K_g K_{pot}}{s(s+a)(s+a_m) + K_i K_m K_g K_{pot}} = Y(s)$$

put in the values

$$X(s) \times \left(\frac{6.62394}{s^3 + 101.71s^2 + 171s + 6.62394} \right) = Y(s)$$