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Assignment 6,7

Q.3

a)

b)

c)

$$q_1^d \cdots q_n^d \rightarrow$$
$$\dot{q}_1^d \cdots \dot{q}_n^d \rightarrow \boxed{\text{Computed torque}}$$
$$\ddot{q}_1^d \cdots \ddot{q}_n^d \rightarrow$$

$$-\tfrac{1}{s} D(s)$$

$$\boxed{J_{eff}\, s^2 + B_{eff}\, s}$$

$$\theta^d \xrightarrow{+} \bigotimes \rightarrow \boxed{K_P + K_D s} \xrightarrow{+} \bigoplus \rightarrow \boxed{\dfrac{1}{J_{eff}\, s^2 - B_{eff}\, s}} \rightarrow \theta_m$$
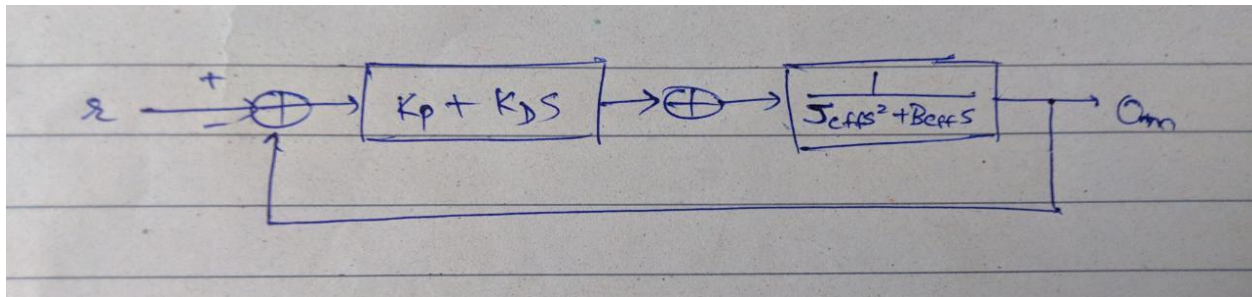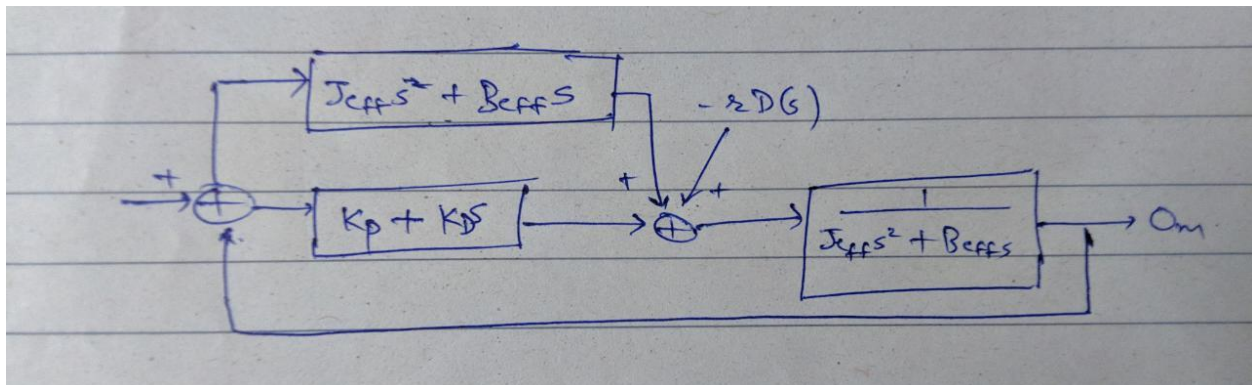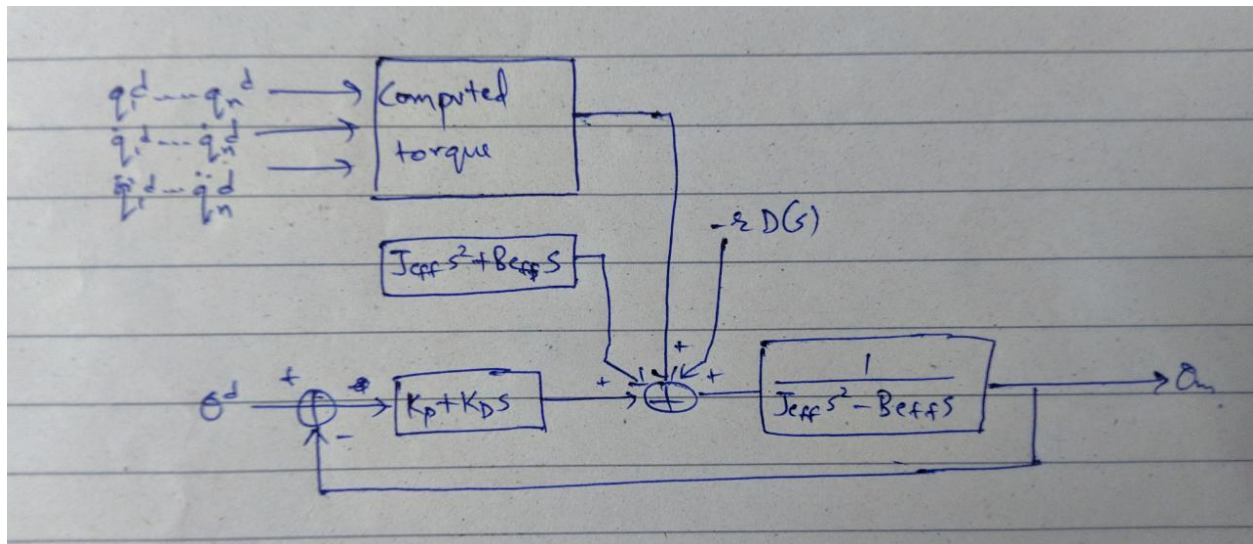
Q.7

We used PD controllers in this assignment. We attached to it feedforward control component.

It is a method used to track time varying trajectories and reject time varying disturbances.