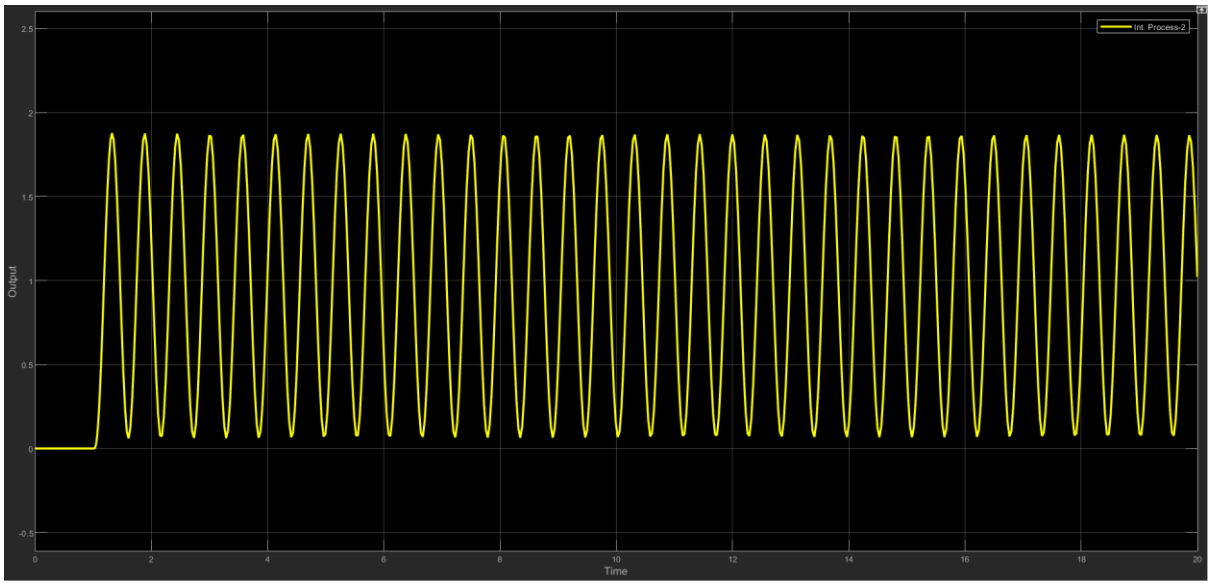
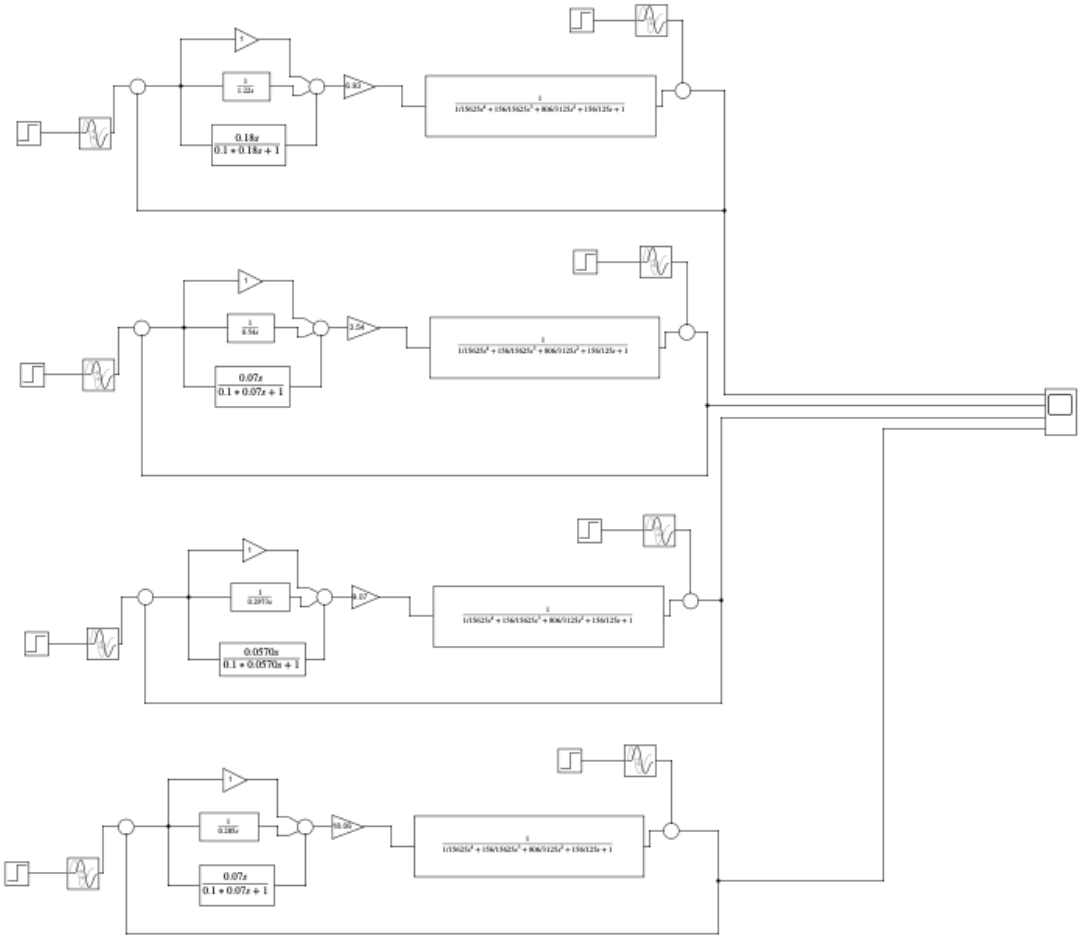
All Codes and simulink in https://github.com/MananMohnot/CL302/tree/master/Assignment%205

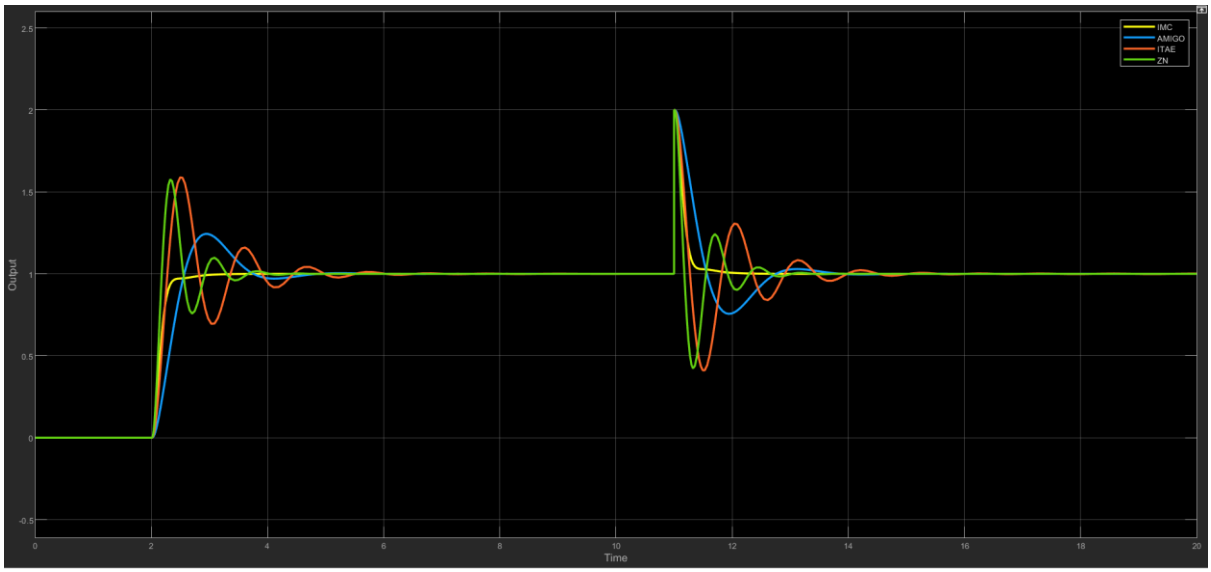
Q1) Refer paper notes

Q2) a) iv)




Q2) b)





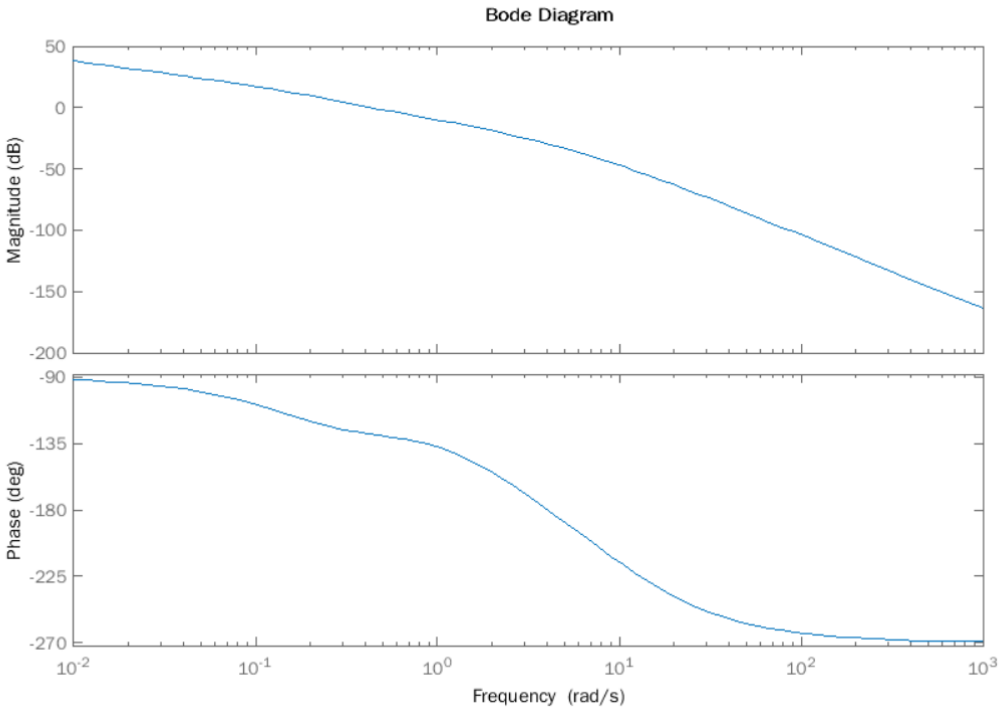

Q3)

In paper

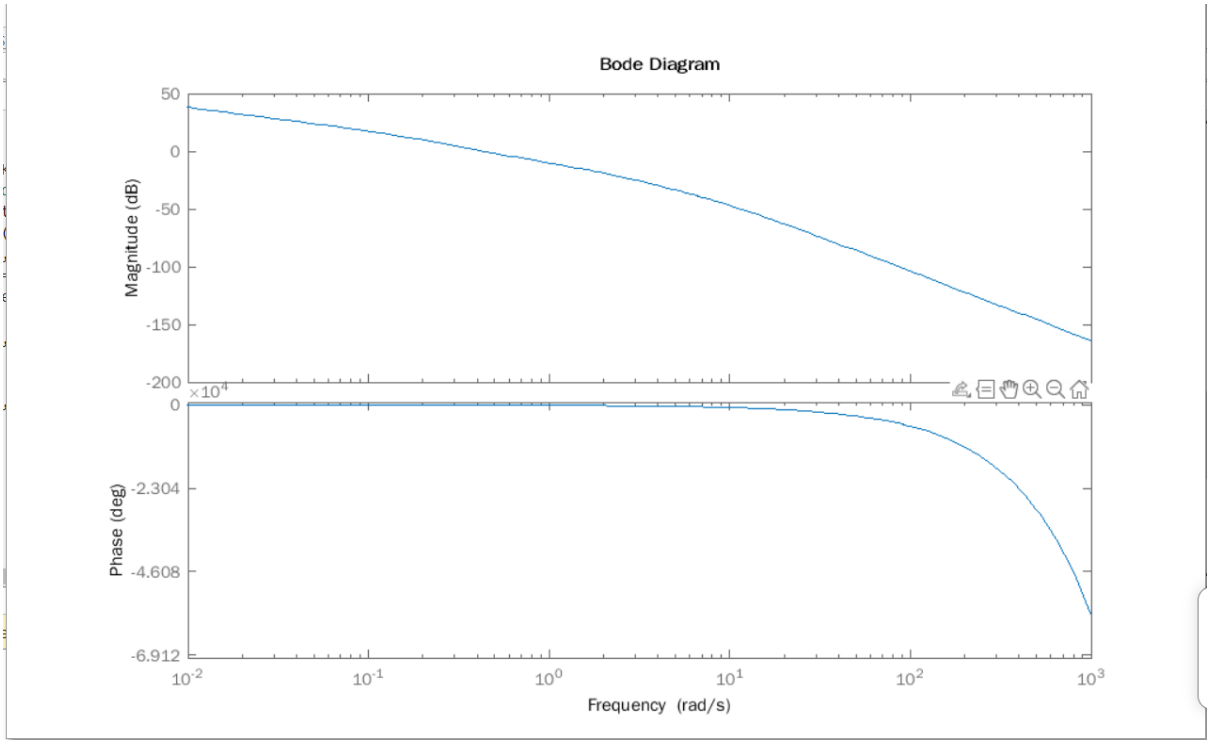
Q4)

In paper

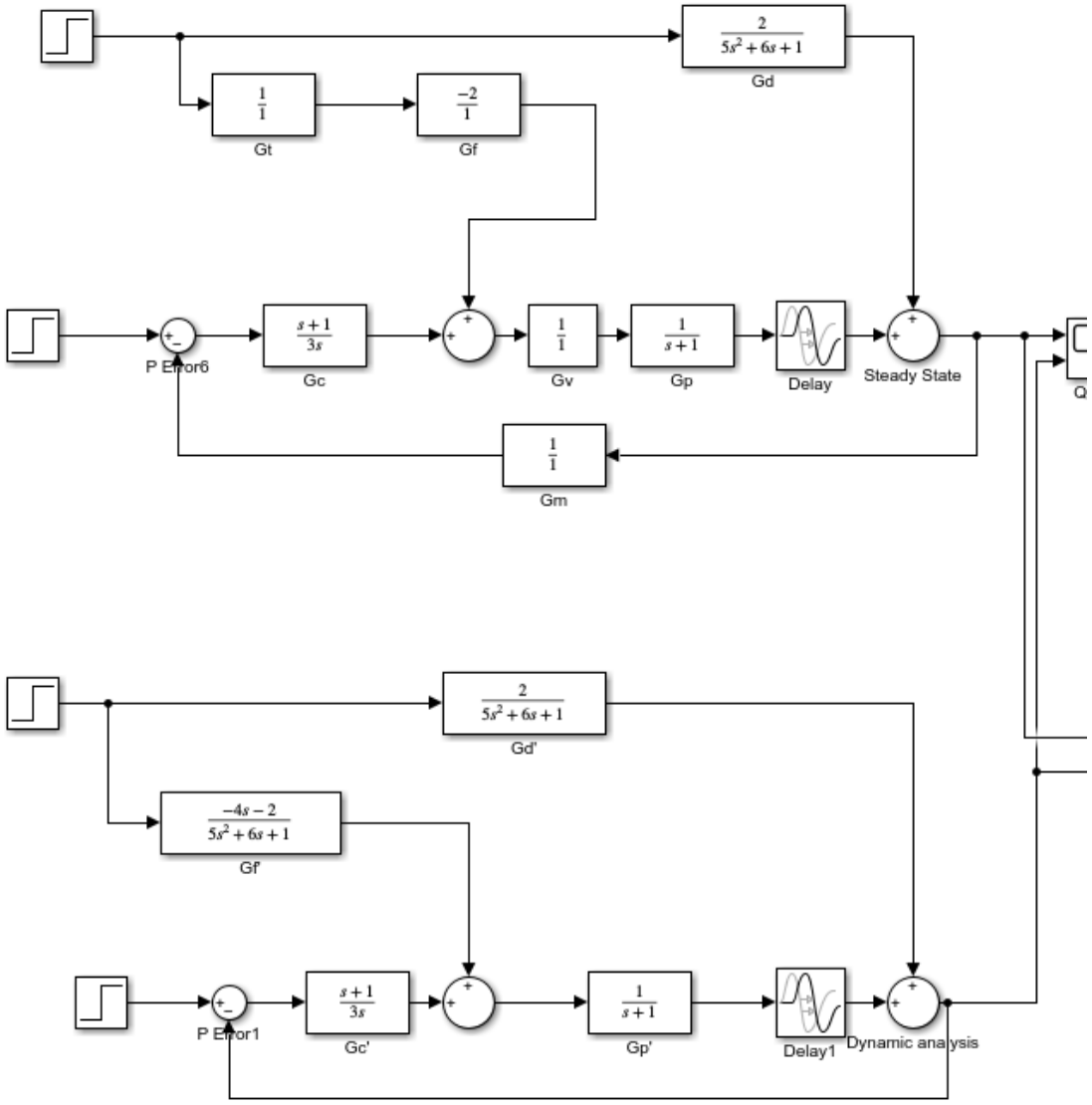
Q5) for normal

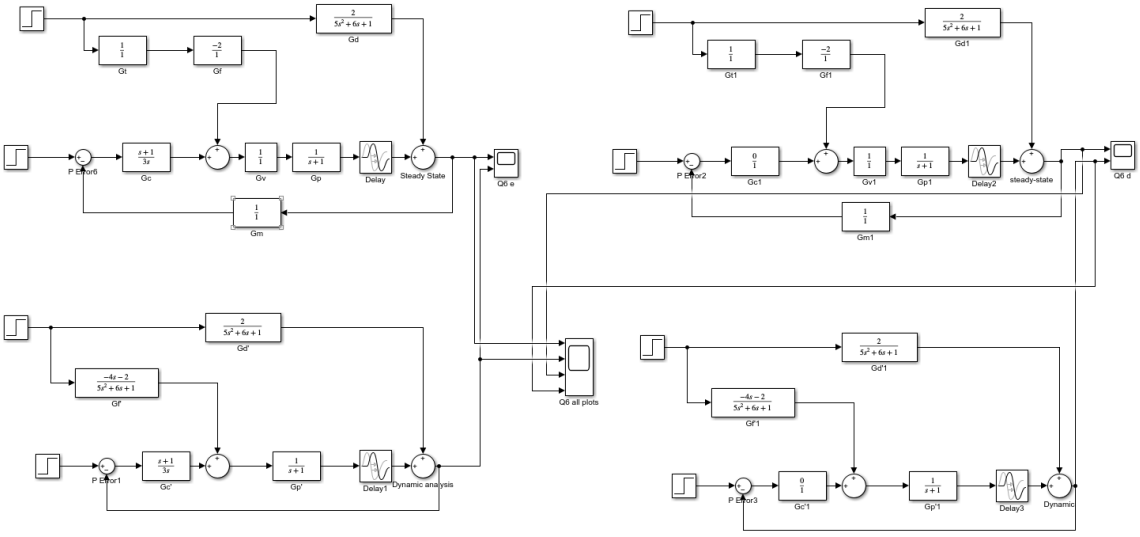



For time delay

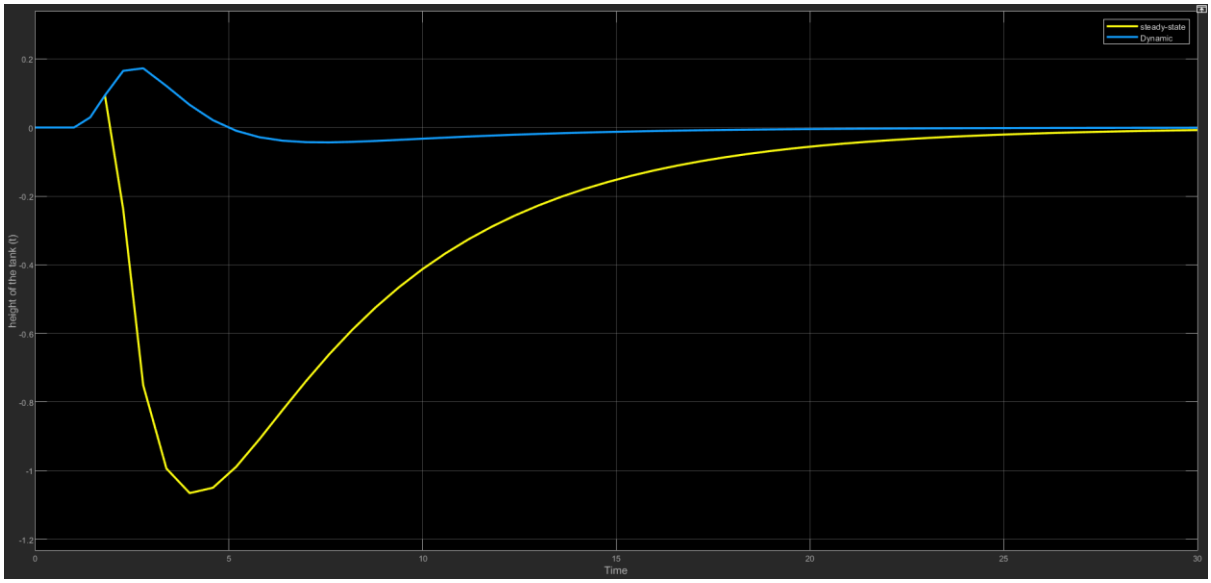



Q6)

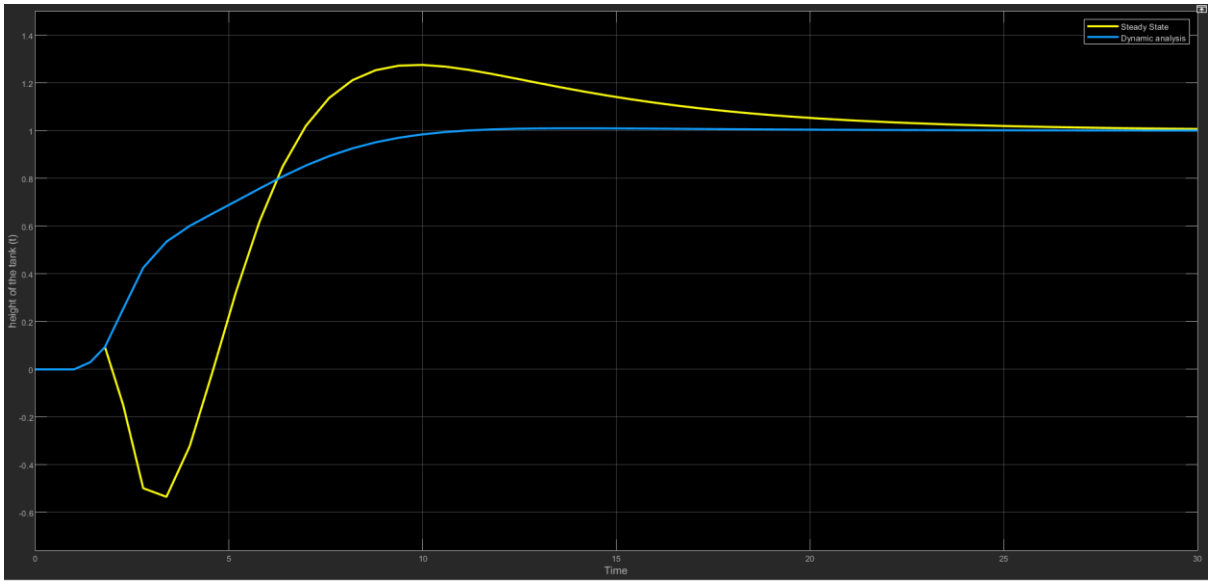

$\frac{2}{5s^2+6s+1}$
Gd
$\frac{1}{1}$
Gt
$\frac{-2}{1}$
Gf
P Error6
$\frac{s+1}{3s}$
Gc
$\frac{1}{1}$
Gv
$\frac{1}{s+1}$
Gp
Delay
Steady State
$\frac{1}{1}$
Gm
$\frac{2}{5s^2+6s+1}$
Gd'
$\frac{-4s-2}{5s^2+6s+1}$
Gf'
P Error1
$\frac{s+1}{3s}$
Gc'
$\frac{1}{s+1}$
Gp'
Delay1
Dynamic analysis



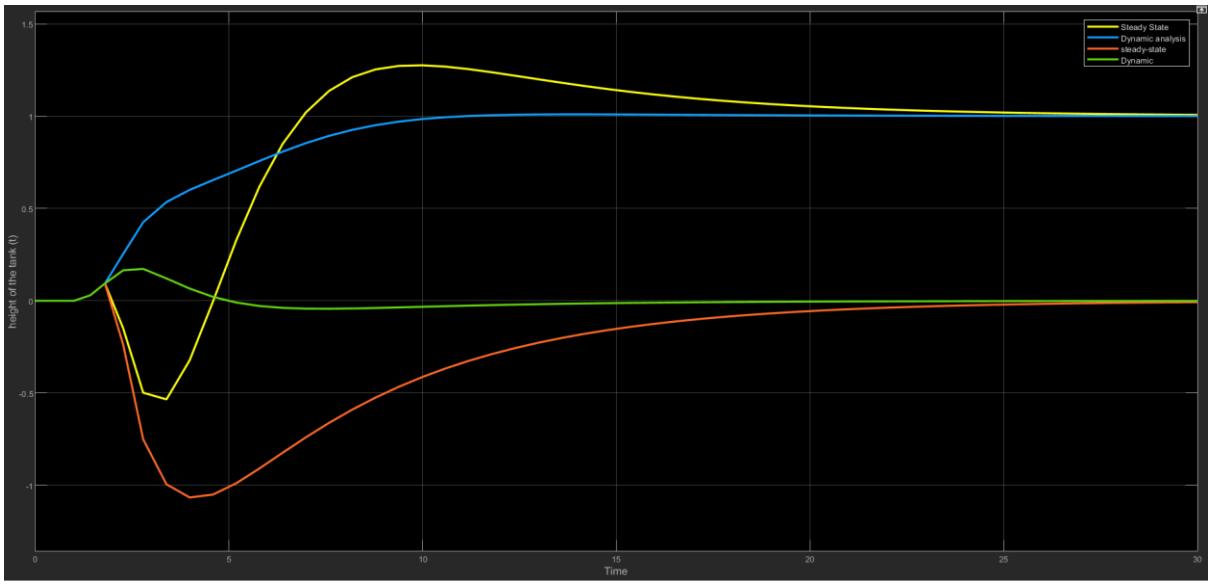

Output D)




Output E)




Mixed




Dynamic shows a better response in both of them