

Exp-1 → To study the representation of a dynamical system in transfer s-domain function (Pole-zero) Form. (Using MATLAB)

(i)  $T(s) = \frac{5}{(s+1)}$

(ii)  $\frac{10s}{(s^2+3s+2)}$

(iii)  $\frac{10(s+1)}{(s^2+5s+6)(s+2)}$

(iv)  $\frac{10}{s^2(s+1)^2}$

(v)  $\frac{10(s^2+5s+6)(s+2)}{(s^2+8s+9)(s+1)}$

(vi)  $\frac{10(s)(s+1)^2}{(s+2)}$

(11) Comment on step response pole zero by plotting

(i) By LT (PFE) for (i) and (ii) Find step response

(ii) MATLAB → Step All