

- (4.a) The following figure shows an  $I^2$  controller. What is the type of the system w.r.t input and w.r.t disturbance?
- (4.b) What is the range of  $k_i$  in which the system is stable?
- (4.c) Use Simulink to demonstrate the tracking behavior of the system for the type of the system. Use a value of your choice for  $k_i$  so that the tracking error converges quickly.

