Worksheet

2. Simplified aircraft model. Transfer function =

`num =` `den =`

Controller transfer function =

$k =$ $D =$

Phase margin =

Amount of extra time delay which can be tolerated =

2.1. PIO. Period of oscillation (observed) =

Period of oscillation (theoretical) =

2.2. Sinusoidal disturbances.

Maximum stabilising gain =

Gain at 0.66 Hz = Phase at 0.66 Hz =

Open loop T.F. ($y \to d$) = Closed loop T.F. ($y \to d$) =

2.3. Fastest pole. $T =$

3. Autopilot. Proportional gain $K_c =$

Period of oscillation $T_c =$

3.1 Transfer function of PID controller =

PID constants: $K_p =$ $T_i =$ $T_d =$

Final value of $T_d =$