$\Rightarrow$

$$\tau_t = 1 - \frac{\tau_r}{\tau_\lambda}(\tau_c - 1) - \frac{\alpha \tau_r}{\tau_\lambda}(\tau_{c'_0} - 1)$$

$$\boxed{\tau_t = 1 - \frac{\tau_r}{\tau_\lambda}\left[(\tau_c - 1) + \alpha(\tau_{c'_0} - 1)\right]}$$

This is same as turbofan $\Rightarrow$ can use all turbofan results for $F/\dot{m}_5$ and α^*

b) Equations here are identical to those for separate stream turbofan use α^* & τ_t^* from that

c) Use ① - ⑤ but with $\alpha = \alpha^*$ from part (b).