

Mod 06

gas & LOX

Assume - $P_c = 250 \text{ psi}$, $A_{RAW} = 5.0$ time = 20 sec

Analysis - a) on CEQUEL

b) highest performance \Rightarrow high I_{sp}
this occurs at mixture ratio of $\boxed{3}$

c) $\epsilon = 5.0$ $\frac{e}{t}$ $P_c = 250$

$$A_t = \frac{F_v c^*}{I_{sp} P_c g_0} = \text{est } F_v = 30000$$

$$A_t = \frac{30000 \times 4258}{220.9 \times 250 \times 32.2}$$

$$A_t \approx 71.83 \text{ in}^2$$