c) ΔG would be negative, $\Delta G = \Delta H - T\Delta S$

d) Rate law = $K [O_3][NO]$

When $[O_3]$ is kept the same and $[NO]$ is doubled, the rate of formation of $[NO_2]$ is doubled also, so $[NO]$ is first order. When $[NO]$ is kept the same and $[O_3]$ is doubled, rate of formation of $[NO_2]$ is doubled, so $[O_3]$ is also first order.

e) Step I is the slow step. In the slow step the reactants and their coefficients are used to determine the rate law. In Step I, the reactants are O_3 and NO, and their coefficients are both 1. This is consistent with the rate law.