Question 1 [20 points]. What is, in simplified form, $R^p_{\text{ctt}}(NP)$?

Question 2 [80 points]. A set $D$ is a tally set exactly if $D \subseteq 0^*$. Prove that if for set $A$ and tally set $D$ it holds that $A \in R^p_{\text{ctt}}(\{D\})$, then there exists a tally set $D'$ such that $A \in R^p_{\text{ctt}}(\{D'\})$. (Side comment: FYI, note that by showing this, you have in shown, give or take the trivial other direction, that, $R^p_{\text{tt}}(TALLY) = R^p_{\text{T}}(TALLY)$, where $TALLY$ is the class of all TALLY sets.)