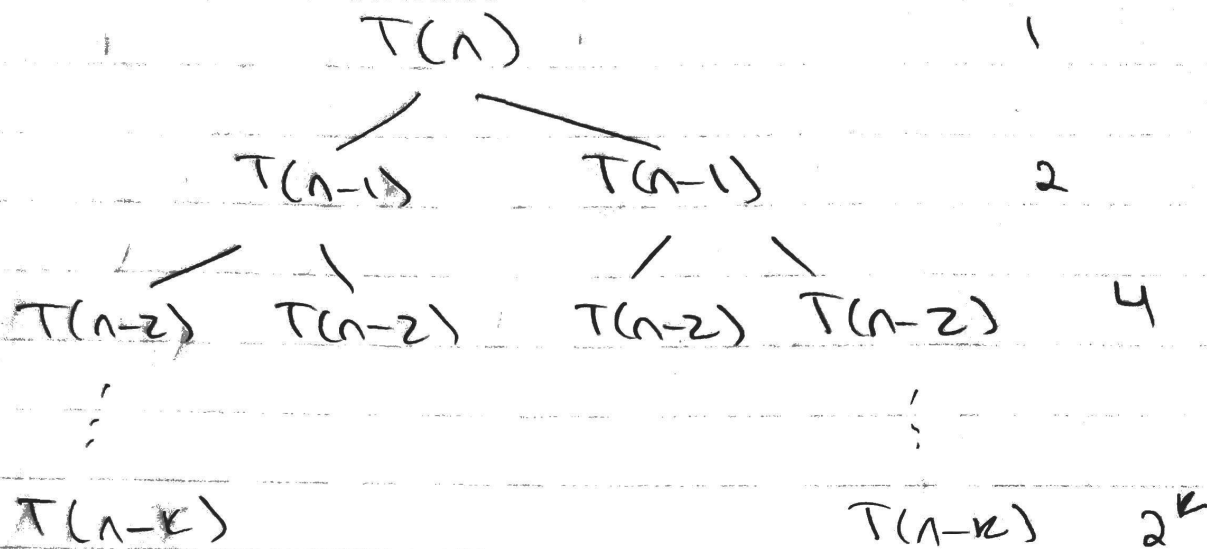


D. $T(n) = 2T(n-1) + O(1)$



$$n-k=0 \quad n=k$$

$$T(n) = 1 + 2 + 4 + \dots + 2^k$$

$$= \frac{2^{k+1} - 1}{2 - 1} = 2^{k+1} - 1$$

$$T(n) = 2^{n+1} - 1$$

$$T(n) = O(2^n)$$