Figure below shows a wide-bandwidth (RF) CMOS cascode amplifier where the DC bias voltages $V_I$, $V_{BIAS}$ and $V_{DD}$ are selected so that both devices operate in the active mode and the low-frequency gain is $A(0) = -g_mR = -10$, with $R = 50\Omega$. Both devices have the same size and the same parameters: $V_t$, $K$, $\gamma = 0$, $\lambda = 0$, $C_{gs} = 1\text{pF}$, $C_{gd} = 0.1\text{pF}$, $C_{ab} = C_{sb} = 0.5\text{pF}$. The load capacitance is $C_L = 1\text{pF}$.

Using the zero-value time-constant method, find an estimate of the bandwidth of the amplifier.

![Diagram of CMOS cascode amplifier](image)