(3) The two transistors in the circuit shown are identical Compute I_{C1Q}, I_{E1Q}, I_{B2Q}, I_{C2Q}, V_{CE1Q} and V_{CE2Q}. Calculate e_o/e_{in}, Z_{in}, Z_o. Assume $\beta = 50$, $V_{BEQ} = 0.7V$ and all capacitors are ac shorts.