

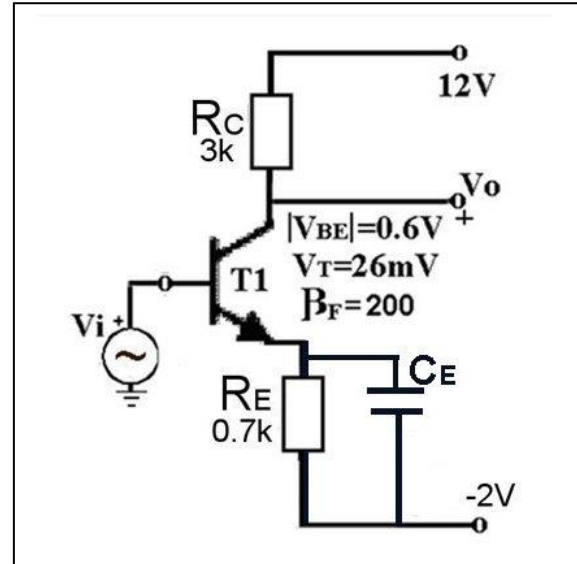
- The exam will have characteristics of a conventional written exam.
- The answers should be written on A4 white-papers by hand.
- The submission of the answer papers should be done in PDF file to the NINOVA system.
- The parts in the problem have equal points.

Problem

The figure shows an amplifier circuit employing a BJT. For the BJT, $\beta_F=200$ and $V_{BE}=0.6V$ are given. $V_T=26mV$.

a) Find the collector current of the transistor (I_C) for DC case (Quiescent point or Bias point).

b) Find ac gain (v_o/v_i).



c) For a second ac signal applied to the circuit as in the figure below, find the total V_o .

