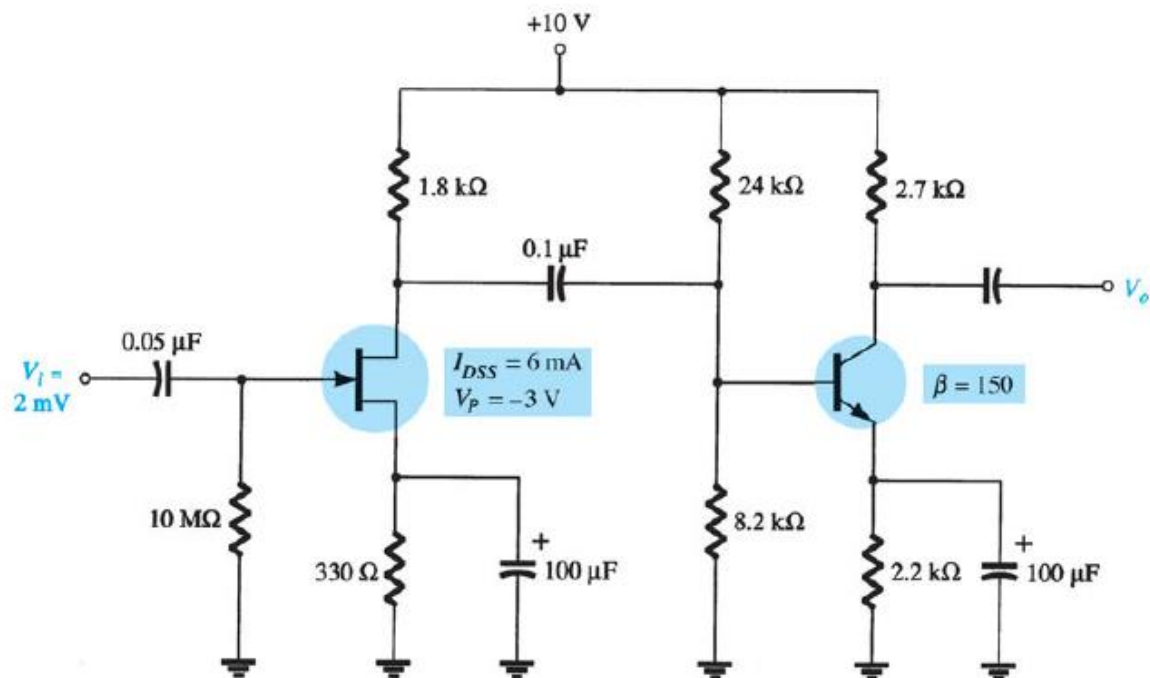


1. For the cascade amplifier calculate the dc bias voltages currents of each stage.
2. For the amplifier circuit calculate the voltage gain of each stage and the overall amplifier voltage gain. Include the dynamic model.
3. Calculate the input impedance ( $Z_i$ ) and output impedance ( $Z_o$ ) for the amplifier circuit
4. What is the maximum input voltage ( $V_{pp}$ ) allowed to prevent distortion.



5. Design the self-bias network below to have a gain of 10. The device should be biased at  $V_{GSQ} = 1/3 V_P$ .

