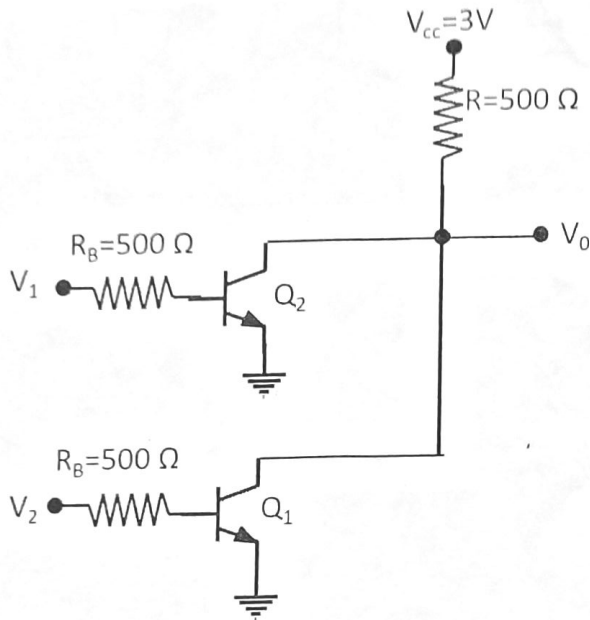


Quiz 3

(Show all the steps in the solution properly. Weightage=7.5 %)

1) Consider the logic circuit as shown below. Assume low voltage (V_{low})=0.2 V and high voltage (V_{high})=3 V. Assume $\beta=20$. Find out the truth table of the logic circuit. Find out the noise margin on high voltage. [4 marks]



2) For the cuicuit shown below, assume $\beta=100$ for both the transistors. Verify that both BJTs operate in the active mode when $R_{c2}=0$. What is the maximum value of R_{c2} for which the assumption of both BJTs operating in active mode is valid. [3.5 marks]

