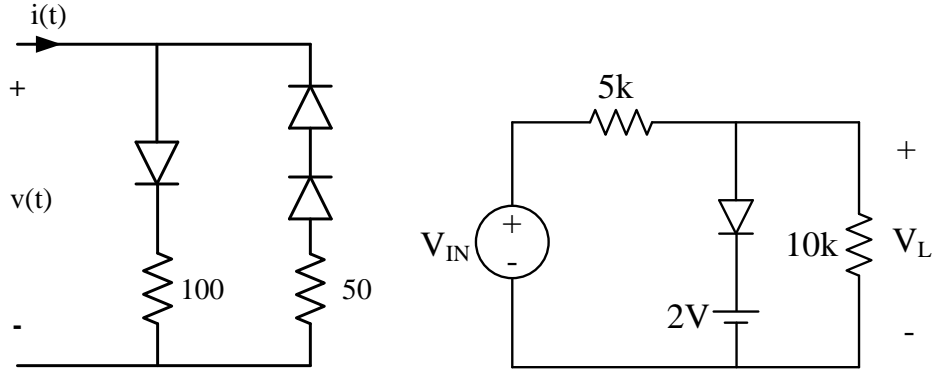
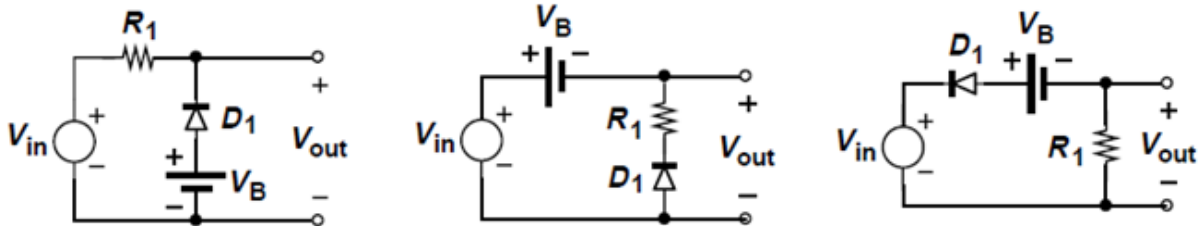


- 1) Sketch $v(t)$ - $i(t)$ characteristic for the first circuit, and, V_{IN} - V_L characteristic for the second circuit.

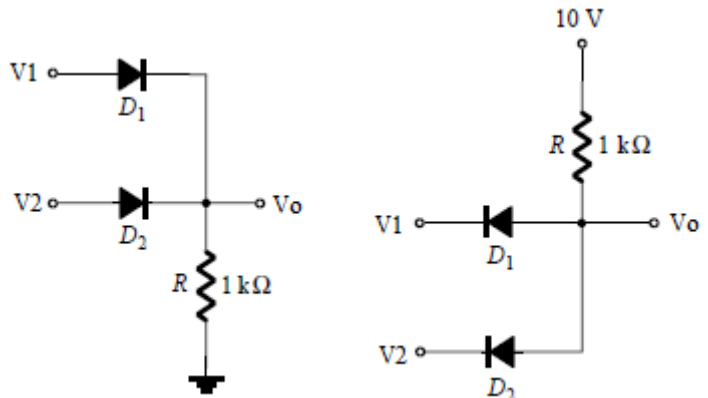


- 2) Plot the input/output characteristics of the circuits below. Assume $V_B = 2$ V.



- 3) Find the V_o values in the table for the following circuits. State what kind of gate is implemented (AND, OR, XOR, NAND, NOR, EQV ?) for each case.

V_1	V_2	V_o
0	0	?
0	5	?
5	0	?
5	5	?



- 4) Design a circuit (using ideal diodes and other circuit elements) such that $y = |x|$, where x is the input, y is the output voltage.