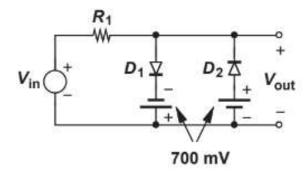


Handwritten Assignments 5

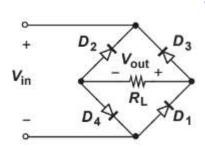
Question 1:

Find the voltage characteristics for the following circuit given that VD,on = 800 mV.



Question 2:

While constructing a full-wave rectifier, a student mistakenly swapped the terminals of D3 as depicted in the following figure. Explain what happens.



Question 3:

Assuming Vin = Vp sin ωt , plot the output waveforms of both circuits for an initial condition of +0.5 V across C1. Assume Vp = 5 V.

A-

$$V_{\text{in}} \circ \begin{array}{c} D_1 \\ \downarrow \\ C_1 \end{array} \xrightarrow{\stackrel{+}{=}} \begin{array}{c} V_{\text{out}} \\ 0.5 \text{ V} \end{array}$$

B-

