

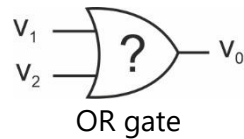
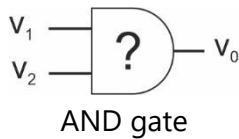
CMPE226 Electronics Lab Report

Experiment # 7

Diode Applications in Electronic Circuits

	Std. No	Name	Group
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
	Date	_____	

Aim of the Experiment: To construct, understand and investigate the logical AND and OR gates using diodes on electronic circuits.



Binary 0: 0 V
Binary 1: +5 V

Forward Bias (FB) Condition:

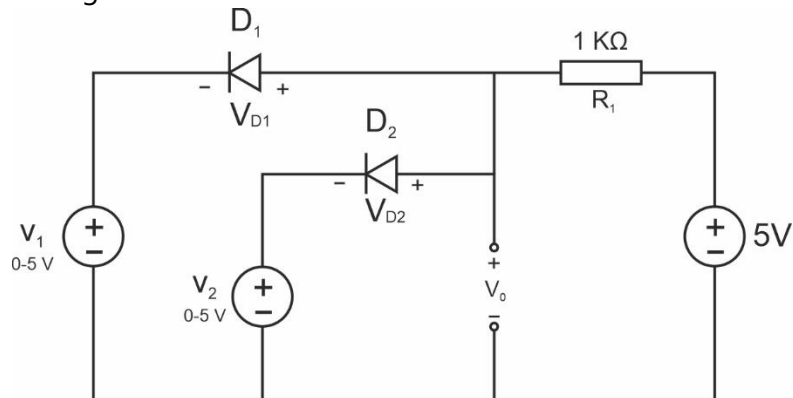
$$V_{\text{anode}} > V_{\text{cathode}}$$

Reverse Bias Condition (RB):

$$V_{\text{anode}} \leq V_{\text{cathode}}$$

Step 1: Connect up the following circuit as shown below.

Fig. 1

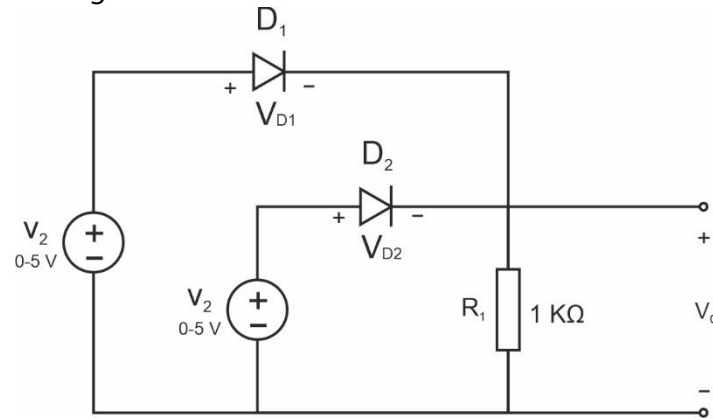


Step 2: Fill the truth table below by adjusting voltage sources V_1 and V_2 .

Truth table of circuit in Fig. 1						
V_1	V_2	D_1	D_2	V_{D1}	V_{D2}	V_0
0V	0V					
0V	+5V					
+5V	0V					
+5V	+5V					

Step 3: Connect up the following circuit as shown below.

Fig. 2



Step 4: Fill the truth table below by adjusting voltage sources V_1 and V_2 .

Truth table of circuit in Fig. 2						
V_1	V_2	D_1	D_2	V_{D1}	V_{D2}	V_0
0V	0V					
0V	+5V					
+5V	0V					
+5V	+5V					

Conclusions