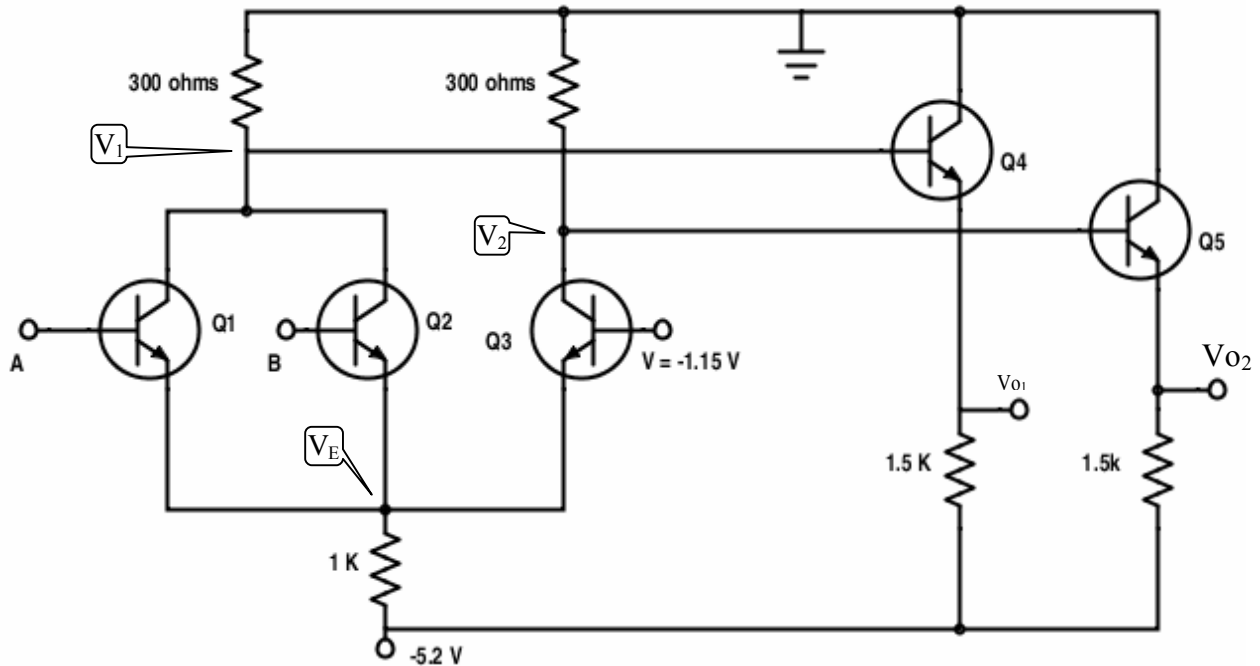


CSE 210 Digital Electronics and Pulse Techniques Sessional

Experiment# 9: Study of an ECL OR/NOR gate

Circuit diagram



Components Required:

1. Transistor BD135 5 pcs
2. Resistors as shown in the diagram

Procedure:

1. Implement the circuit.
2. Apply -0.75V and -1.55V as input voltages.
3. Measure the voltages V_1 , V_2 , V_E , V_{O1} , and V_{O2} for all input combinations of A and B.

Questions:

1. Using experimental data analyze the operation of the above circuit.
2. Using experimental data show in a table the state of each of the transistors for all input combinations.
3. Why are the transistors Q4 and Q5 been used? Explain using experimental data.

Report:

Report should cover the following points:

1. Objective
2. Circuit Diagram
3. Experimental Data
4. Calculations if any.
5. Answer to the questions
6. Discussion of the findings