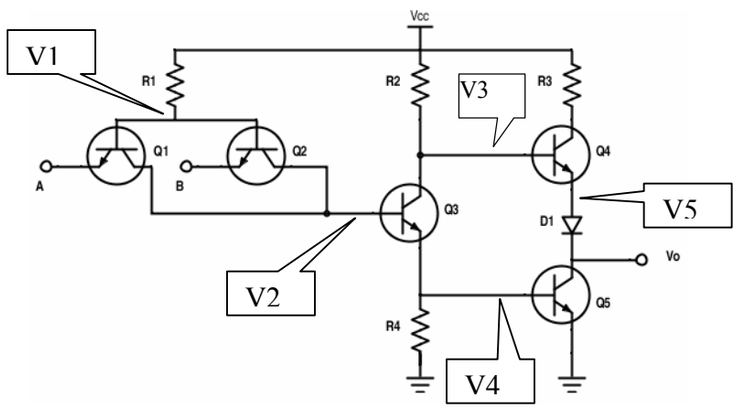
Bangladesh University of Engineering and Technology (BUET)
Department of Computer Science and Engineering (CSE)

CSE 210 Digital Electronics and Pulse Techniques Sessional

Experiment# 5: Study of a TTL NAND gate

CKT diagram



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Components Required

1. Transistor BD135	5 pcs	3. Resistor values will be made known during lab class
2. Doide 1N4001 or 1N4007	1 pc	

Procedure:

1. Implement the circuit.
2. Apply input to ports A and B as stated in the black board.
3. Measure the voltages V1, V2, V3, V4, V5, and Vo 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 is the diode D1 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