Lab # 06 Task

1. Design and implement the circuitry for a Half subtractor and simulate it on Logicly.
2. Implement a half subtractor using AND, OR and NOT gates only and simulate it on Logicly.
3. Design and implement the circuitry of a full subtractor and simulate it on Logicly.
4. Implement the half subtractor using NOR Gates only and simulate it on Logicly.
5. Implement the full subtractor using NOR Gates only and simulate it on Logicly.
6. Design and implement the circuitry for 2 bit binary number subtraction on Logicly.
   Subtract the following two bit binary numbers on Logicly.
   A = 11, B = 10
7. Write the Boolean expression for Difference (A-B-C) and Borrow (C') that describe the below truth table by simplifying using k-maps.

Inputs			Output	
A	B	C	(A-B-C)	C'
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	0	1
1	0	0	1	0
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1

8. Design and implement the circuitry for a BCD-to-Excess 3 Code Converter.