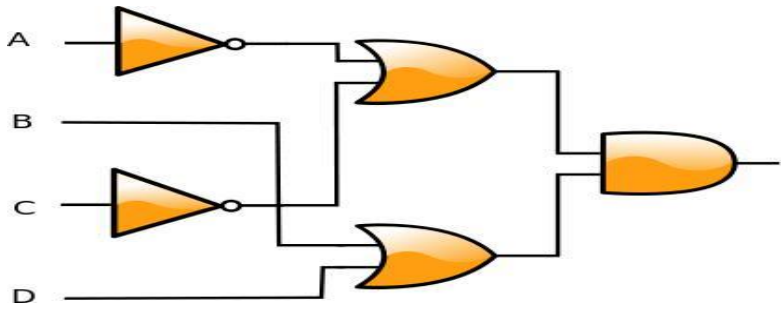
Lab Tasks

Exercise # 01

Implement NAND, NOR, XOR and XNOR gates on breadboard.

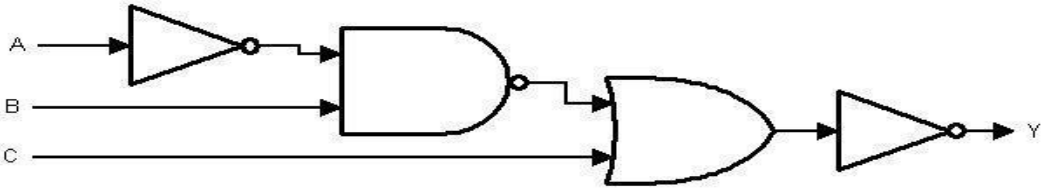
Exercise # 02(a)

Implement given circuit and draw truth table.



Exercise # 02(b)

Implement given circuit and draw truth table.



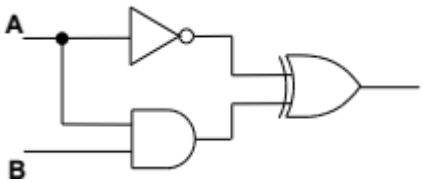
Exercise # 03

Draw a circuit diagram corresponding to the following Boolean expression:

1. **(A + B)(B + C)**
2. **((A + B'C)(A + BC))'**
3. **(A' + BC)'**

Exercise #04(a)

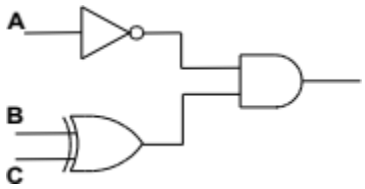
Show the behavior of the following circuit with a truth table:



A	B	A'	AB	A' ⊕ AB

Exercise #04(b)

Show the behavior of the following circuit with a truth table:



A	B	C	A'	B ⊕ C	A' (B ⊕C)

Exercise #05

Use the XOR gate to construct the parity-check circuit shown in fig.1.3. verify the proper operation of circuit by applying at least 3 even-parity and 3 odd-parity inputs. Record your results in tabular form below.

A	B	C	D	X