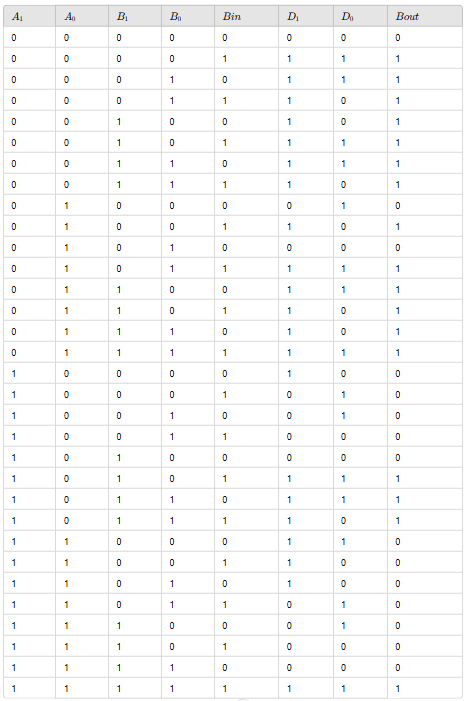
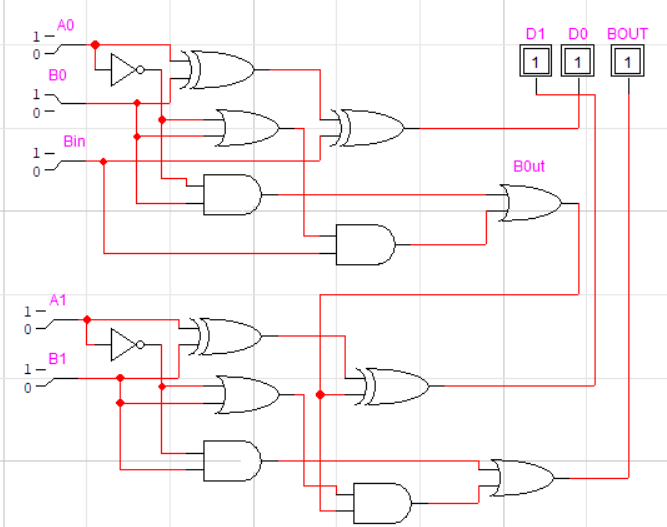
**DLD LAB\_05[B]**

**TASK 3: Create a 2-bit subtracter circuit and implement it on breadboard along with truth table.**

**TRUTH TABLE:**

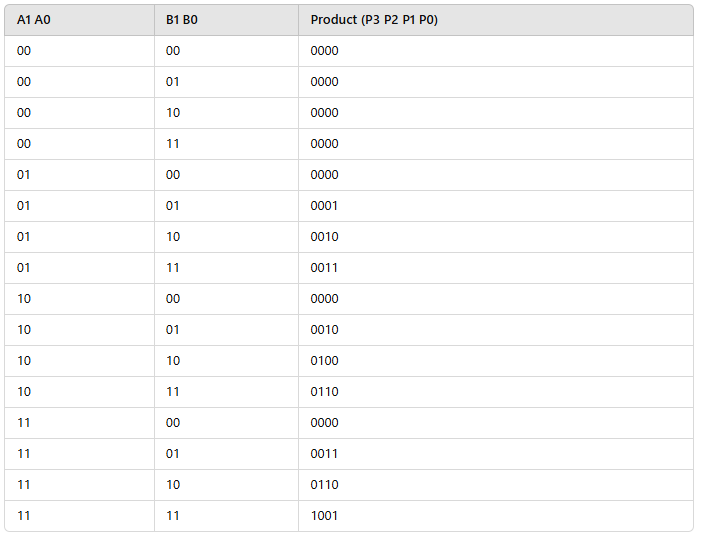
****

**CIRCUIT:**

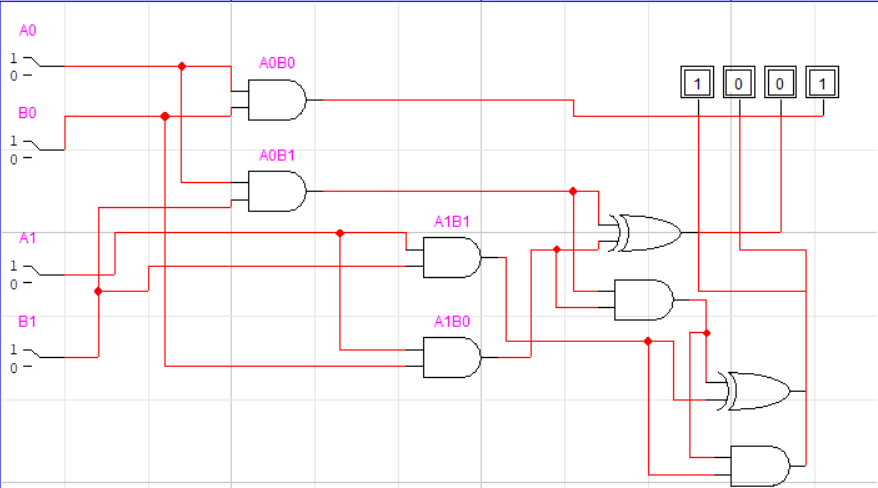
****

**TASK 4:Create a 2-bit binary multiplier along with its truth table and multiply the number 11 and 11.**

**TRUTH TABLE:**

****

**CIRCUIT:**

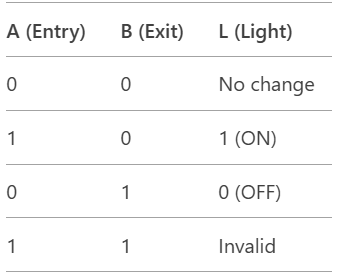
****

**QUIZ Q1] Design a circuit that turns on an LED(representing a bulb) when a person enters a room and turns it off when they leave. There are two doors (A and B) with sensors(switces).**

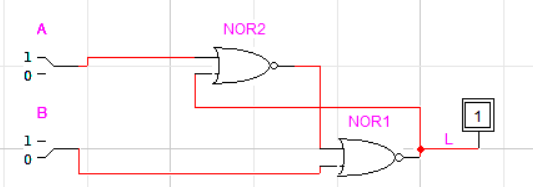
**Inputs: A (Entry Sensor), B(Exit Sensor)**

**Output: L (light ON/OFF).**

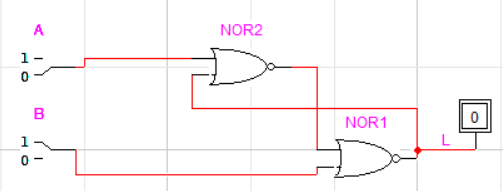
**TRUTH TABLE:**

****

**ON CASE CIRCUIT:**

****

**OFF CASE CIRCUIT:**

****

**QUIZ Q2] Design a basic traffic light with three lights (RED , YELLOW , GREEN). Use two switches (S1,S2) to control the signal state:**

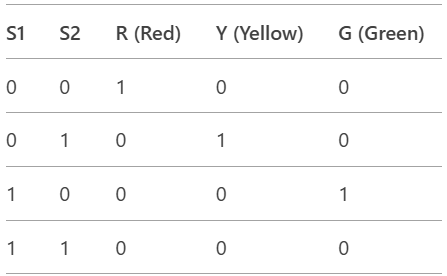
**00->RED ON**

**01->YELLOW ON**

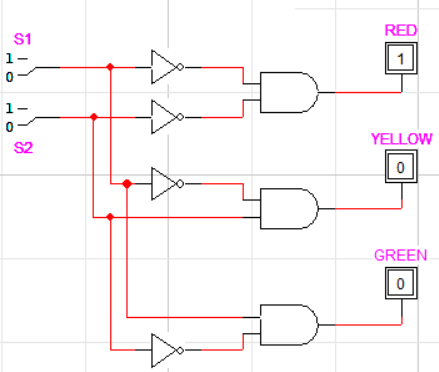
**10->GREEN ON**

**11->ALL OFF**

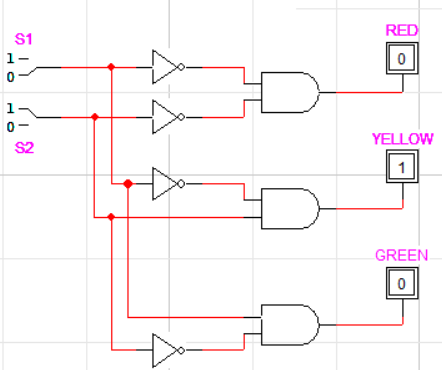
**TRUTH TABLE:**

****

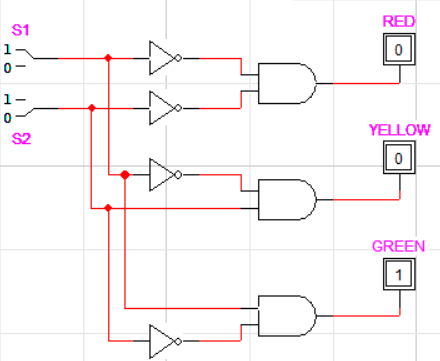
**RED LIGHT:**

****

**YELLOW:**

****

**GREEN:**

****