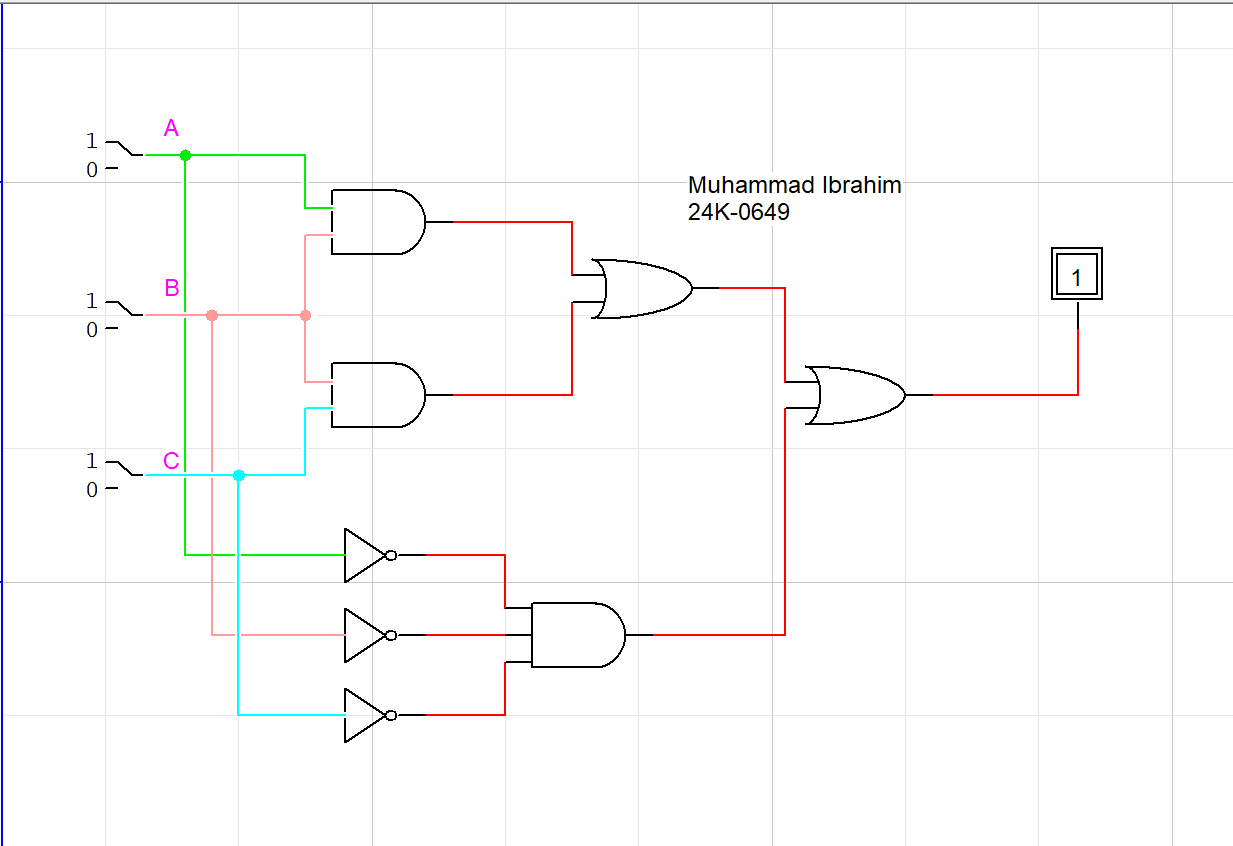
DLD Lab 04*[In-Lab Tasks]*

**[Muhammad Ibrahim]-[24K-0649]**

# **Task 01:**

## Minimum SOP:

## Circuit Diagram:

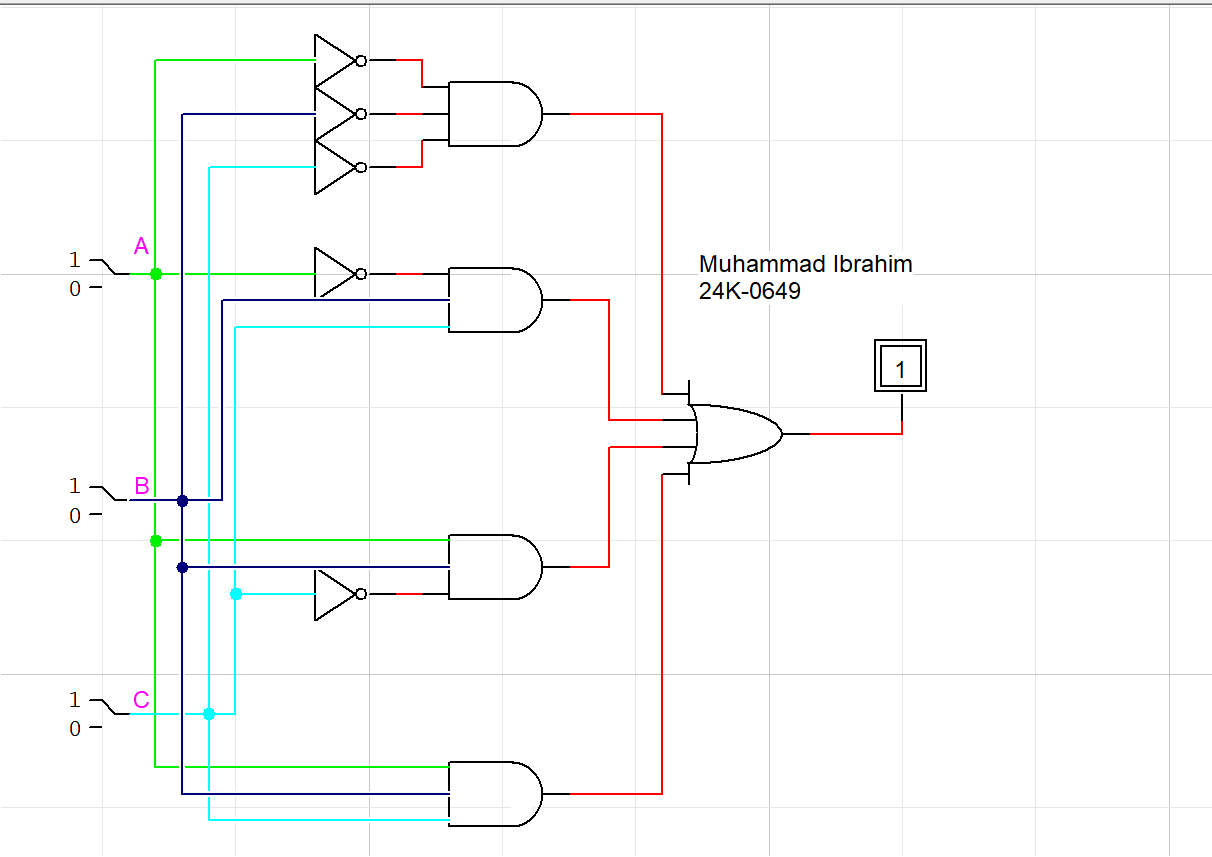


## Truth Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **C** | **D** |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

## Actual Expression:

## Circuit Diagram:



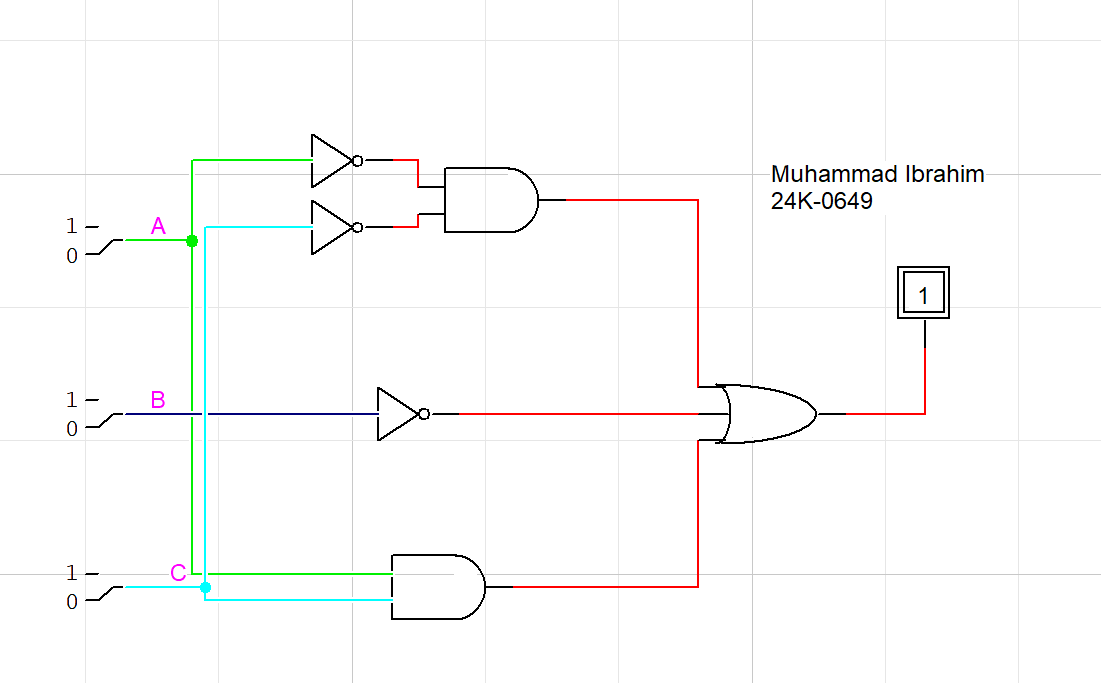
## Truth Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **C** | **D** |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

# **Task 02:**

## Minimum SOP:

## Circuit Diagram:

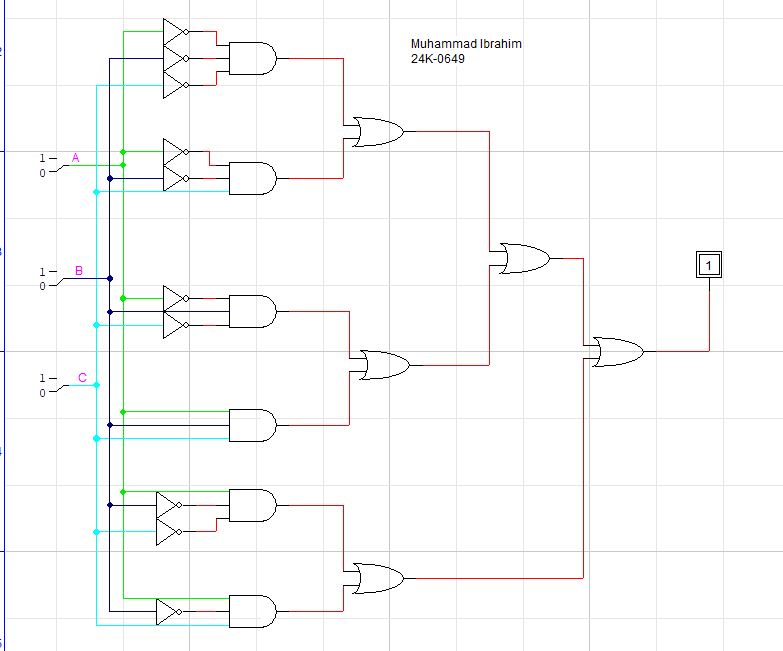


## Truth Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **C** | **D** |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

## Actual Expression:

## Circuit Diagram:



## Truth Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | **B** | **C** | **D** |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |