

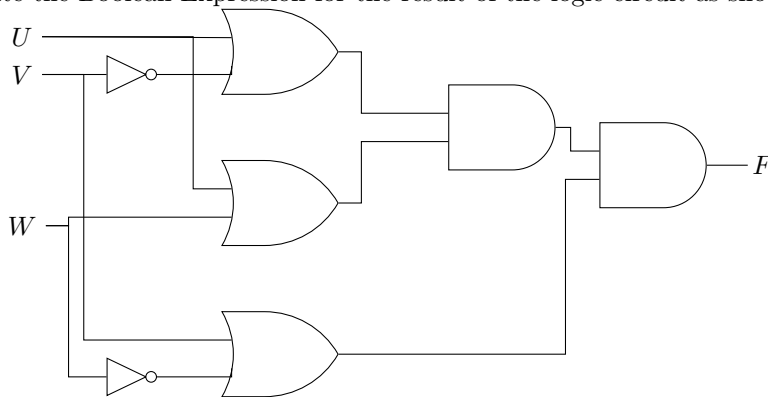
# Assignment 2 — FPGA Lab

EE22MTECH02005

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## 1 Question 1

Write the Boolean Expression for the result of the logic circuit as shown below:



## Solution

$$F = (U + \bar{V}).(U + W).(V + \bar{W}) = (U(V + \bar{W}))$$

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U	V	W	F
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	1

## 2 Question 2

Implement the above using NAND logic.

## solution

$$F=U(V + \bar{W})$$

