EE5811 : FPGA LAB
ASSIGNMENT 4

P V Aishwarya
IS21MTECH14004

Problem

Question 5) c) from papers/icse/cs/2018.pdf
Simplify the following expression using Boolean Laws :

$$A.(A' + B).C.(A + B)$$

Implement above program in Arduino using AVR GCC.

Solution

Truth Table

A	B	C	LHS	RHS
0	0	0	0	0
0	0	1	0	0
0	1	0	0	0
0	1	1	0	0
1	0	0	0	0
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1

Table 1: Truth table for A.(A' + B).C.(A + B) = A.B.C

Implemented the above truth table in Arduino. The inputs A,B,C equivalent are displayed on seven segment display and its corresponding output is displayed with LED.
Steps:
1. In Ubuntu, open test folder and write program in main.c
2. One program was written to display LHS truth table and other to display RHS truth table.
3. Compile and load the program using 'make' command.