Digital Logic Circuit Design Project

Due : 12 / 1, 23:59 p.m.

Design a minimal expression generator.

1) The input of generator is a function with minterm expression and output is a minimal expression of sum of products form.
2) The number of variable for a function is 3, 4, and 5. You can use any algorithms such as K-map, Quine-McCluskey method and etc.

Please submit the source code and result report including implementation and manual of the generator. Your program will be tested with 10 functions. In report, you can test your generator with any functions. The simulator can be developed with C, C++, Visual C++, Matlab, and Python.

Points :
3 Variables (30)
4 Variables (40)
5 Variables (30)

Bonus point (20) :
If your code implemented by receiving the number of variables, detach your source code. And test your code with F below (6 variable) and detach the result image.

$$F = \sum (m_0, m_2, m_8, m_9, m_{10}, m_{12}, m_{13}, m_{16}, m_{18}, m_{24}, m_{25}, m_{26}, m_{29}, m_{31}, m_{32}, m_{34}, m_{35}, m_{39}, m_{40}, m_{42}, m_{43}, m_{47}, m_{48}, m_{50}, m_{56}, m_{58}, m_{61}, m_{63})$$

0 Points will be given in case of plagiarism on projects