SSN COLLEGE OF ENGINEERING, KALAVAKKAM

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Compiler Design Lab – CS6612

PROGRAMMING ASSIGNMENT 5 – Implementation of Desk Calculator using Yacc Tool

---

Due Date: 02.02.2018 05 02.2018

Write Lex program to recognize relevant tokens required for the Yacc parser to implement desk calculator. Write the Grammar for the expression involving the operators namely, **+ , - ,* , / , ^ , (,). Precedence and associativity has to be preserved**. Yacc is available as a command in linux. The grammar should have non terminals E, Op and a terminal id.

Verify your calculator with the following inputs

1. 3+9
2. 3+9*6
3. (3+4)*7
4. (3-4)+(7*6)
5. 5/7+2
6. 4^2^1
7. (2^3)^2

Bonus Points:

Extend your calculator to evaluate Boolean expressions.

Tips to use tools

- Write Lex specification, compile and execute to check for the tokens, namely, operators and the identifiers.
- Write yacc specification in ex.y and type the command yacc ex.y.The output will be y.tab.c
- Compile using the command cc y.tab.c. The output will be a.out
- Use exe to give input and get the output.