2000 Paper 12 Question 7

Compiler Construction

Give a brief description of the main features of *either* Lex and Yacc *or* the corresponding Java tools JLex and Cup. [5 + 5 marks]

Illustrate their use by outlining how you would construct a parser for expressions composed of identifiers, integers, unary minus and binary operators $+$, $-$, $*$ and $/$. Your parser is expected to create a parse tree in a format of your choice representing the expression that is presented to it. If it helps, you may assume that expressions will be terminated by writing a semicolon after them. [10 marks]