C++ Language Grammar:

Terminals - nif do while for switch break continue typedef struct return main int long char float double void static ;( ) a b c A B C 0 1 2 + \* - / \_ # include += ++ ...

Nonterminals - <statement> <expression> <C source file>

<identifier> <digit> <nondigit> <identifier>

<selection-statement> <loop-statement>

Start symbol - <C source file>

Production Rules C++: Identifiers

<identifier>⇒<nondigit>

⇒<identifier> <nondigit>

⇒<identifier> <digit>

<nondigit>⇒a | b | . . . | Y | Z | <---This represents all the letters in the alphabet

<digit>⇒0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Production Rules C++: Expressions

<expression>⇒<identifier>

⇒<constant>

⇒<cond-expression>

⇒<assign-expression>

<cond-expression>⇒<expression> > <expression>

⇒<expression> != <expression>

<assign-expression>⇒<expression> = <expression>

⇒<expression> += <expression>

Production Rules C++: Statements

<statement>⇒<select-statement>

⇒<loop-statement>

⇒<compound-statement>

⇒<express-statement>

<select-statement>⇒if (<expression>)

⇒if (<expression>)<statement>else <statement><loop-statement>

⇒while (<expression>) <statement>

⇒do <statement>while (<expression>)

<express-statement>⇒<expression> ;