<program> ::= <statement\_list>

<statement\_list> ::= <statement> | <statement\_list> <statement>

<statement> ::= <let\_statement> | <assign\_statement> | <expression\_statement> | <return\_statement>

| <if\_statement> | <print\_statement> | <clock\_statement>

<let\_statement> ::= LET IDENT ASSIGN <expression> SEMICOLON

<assign\_statement> ::= IDENT ASSIGN <expression> SEMICOLON

<expression\_statement> ::= <expression> SEMICOLON

<return\_statement> ::= RETURN <expression> SEMICOLON

<if\_statement> ::= IF LPAREN <expression> RPAREN LBRACE <statement\_list> RBRACE

| IF LPAREN <expression> RPAREN LBRACE <statement\_list> RBRACE ELSE LBRACE <statement\_list> RBRACE

<print\_statement> ::= PRINT <expression> SEMICOLON

<clock\_statement> ::= CLOCK DOT CLOCK LPAREN RPAREN SEMICOLON

<expression> ::= <term> | <expression> <add\_op> <term>

| <expression> <rel\_op> <term>

<term> ::= <factor> | <term> <mul\_op> <factor>

<factor> ::= INT | FLOAT | STR | BOOL | IDENT | <function\_literal> | <grouped\_expression>

<function\_literal> ::= FUNCTION LPAREN <parameters> RPAREN LBRACE <statement\_list> RBRACE

<parameters> ::= <IDENT> COMMA <parameters> | IDENT | NIL

<grouped\_expression> ::= LPAREN <expression> RPAREN

<add\_op> ::= PLUS | MINUS

<mul\_op> ::= ASTERISK | SLASH

<rel\_op> ::= LT\_EQ | LT | GT\_EQ | GT | EQ | NOT\_EQ

<NIL> ::= (empty string, representing no parameters)