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MINI-L Grammar

prog -> PROGRAM ident SEMICOLON block END_PROGRAM

block -> dec SEMICOLON dec_loop BEGIN_PROGRAM stat_loop

dec_loop -> dec SEMICOLON dec_loop | ϵ

dec -> ident ident_loop COLON dec2

ident_loop -> COMMA ident ident_loop | ϵ

ident -> IDENT

dec2 -> INTEGER | ARRAY L_BRACKET NUMBER R_BRACKET OF INTEGER

stat -> EXIT | CONTINUE | BREAK | WRITE var_loop | READ var_loop | if_stat
| DO BEGINLOOP stat_loop ENDLOOP WHILE bool_exp
| WHILE bool_exp BEGINLOOP stat_loop ENDLOOP | var ASSIGN stat2

if_stat -> IF bool_exp THEN stat_loop else_loop ENDIF

else_loop -> ELSEIF bool_exp stat_loop else_loop | ELSE stat_loop | ϵ

stat2 -> exp | bool_exp QUESTION exp COLON exp

bool_exp -> rel_and_exp bool_exp2

bool_exp2 -> OR rel_and_exp | ϵ

rel_and_exp -> rel_exp rel_and_exp2

rel_and_exp2 -> AND rel_exp | ϵ

rel_exp -> NOT rel_exp2 | rel_exp2

rel_exp2 -> exp comp exp | TRUE | FALSE | L_PAREN bool_exp R_PAREN

comp -> EQ | NEQ | LT | GT | LTE | GTE

exp -> m_exp exp2

exp2 -> exp_op m_exp exp2 | ϵ

exp_op -> ADD | SUB

m_exp -> term m_exp2

m_exp2 -> mult_op term m_exp2 | ϵ

mult_op -> MULT | DIV | MOD

term -> SUB term2 | term2

term2 -> var | NUMBER | L_PAREN exp R_PAREN

var -> ident | ident L_PAREN exp R_BRACKET

stat_loop -> stat SEMICOLON stat_loop2

stat_loop2 -> stat SEMICOLON stat_loop2 | ϵ

var_loop -> var var_loop2

var_loop2 -> COMMA var var_loop2 | ϵ