G[program]:

program → ExtDefList

ExtDefList→ExtDef ExtDefList | ε

ExtDef→Specifier ExtDecList ; |Specifier FunDec CompSt

Specifier→int | float |char

ExtDecList→VarDec | VarDec , ExtDecList

VarDec→ID | ID ArrayDec

ID→ IDAlpha| IDDigit| ID\_|Alpha|\_

Alpha → A|B……|Z|a|b…..|z

Digit → 0|1|2|3|4|5|6|7|8|9

ArrayDec→LB Exp RB | LB Exp RB ArrayDec

FucDec→ID ( VarList ) | ID ( )

VarList→ParamDec , VarList | ParamDec

ParamDec→Specifier VarDec

CompSt→{ DefList StmList }

StmList→Stmt StmList | ε

Stmt→Exp ; | CompSt | return Exp ; | if ( Exp ) Stmt | if ( Exp ) Stmt else Stmt | while ( Exp ) Stmt | FOR(Exp;Exp;Exp)Stmt | BREAK;|CONTIUNE;|;

DefList→Def DefList | ε

Def→Specifier DecList ;

DecList→Dec | Dec , DecList

Dec→VarDec | VarDec = Exp

Exp →Exp = Exp | Exp && Exp | Exp || Exp | Exp < Exp | Exp <= Exp

| Exp == Exp | Exp != Exp | Exp > Exp | Exp >= Exp| Exp + Exp

| Exp - Exp | Exp \* Exp| Exp / Exp | Exp % Exp| Exp += Exp

| Exp -= Exp | Exp \*= Exp | Exp /= Exp | Exp %= Exp| ID | INT

| FLOAT| ( Exp ) | - Exp | ! Exp | ID ( Args ) | ++Exp| Exp++

| --Exp | Exp-- | ID () | ID ArrayDec

Args→Exp , Args | Exp