

Tiny CFG

6) func_call-> identifier (ID)

ID-> [number | identifier] comma'

comma'-> , [func_cal | identifier | number]comma' | ϵ

7) Term->number | identifier | func_call

8) Arithmetic_op->+ | - | * | /

9) Equ-> Equ op Equ | (Equ) | identifier | number

Equ->(Equ)Equdash | id Equdash | num Equdash | Func_cal Equdash

Equdash-> op Equdash | ϵ

10)Exp->string | Term | Equ

11) Assigement_state->id := Exp

12) Datatype->int | string | float

13)declare_statement-> data_type (id | Assigement_state) Declaration ;

Declaration -> ,id | , Assigement_state Declaration | ϵ

14) write_statement-> write Exp | endl;

15) read_statemnt-> read id ;

16) ReturnState \rightarrow return Exp;

17) CondOp \rightarrow < | > | = | <>

18) Condition \rightarrow identifier CondOp Term

19) BoolOp \rightarrow && | ||

20) ConditionStatement \rightarrow ConditionStatement BoolOp Condition | Condition

- ConditionStatement \rightarrow Condition ConditionState
- ConditionState \rightarrow BoolOp Condition ConditionState | ϵ

21) IfState \rightarrow if ConditionStatement then Statements ElseIfClosure

Statements \rightarrow Statement Statements | ϵ

- Statement \rightarrow Comment_Statment | Assignment_Statment ; | declare_statement | Write_Statment | Read_Statment | Function_Call | IF_Statment | Repeat_Statment | Return_Statement | ϵ

ElseIfClosure \rightarrow ElseIfState | ElseState | end

22) ElseIfState \rightarrow elseif ConditionStatement then Statements ElseIfClosure

23) ElseState \rightarrow else Statements end

24) RepeatState \rightarrow repeat Statements until ConditionStatement

25) FnName \rightarrow identifier

26) Parameter \rightarrow Datatype identifier

27) $\text{Function_Declaration} \rightarrow \text{Datatype FunctionName (Parameters)}$

~~$\text{Parameters} \rightarrow \text{Parameters}, \text{Parameter} \mid \text{Parameter}$~~

$\text{Parameters} \rightarrow \text{Parameter Parameters'}$

$\text{Parameters'} \rightarrow ,\text{Parameter Parameters'} \mid \epsilon$

28) $\text{Function_Body} \rightarrow \{ \text{Statements} \}$

29) $\text{Function_Statment} \rightarrow \text{Function_Declaration Function_Body}$

30) $\text{Main_Function} \rightarrow \text{Datatype main () Function_Body}$

31) $\text{Program} \rightarrow \text{FunStatement Main_Function}$

$\text{FunStatement} \rightarrow \text{Function_Statment FunStatement} \mid \epsilon$