**1)NUMBER:** (-|+)?[0-9]+(\.[0-9]+)?(E (-|+)? [0-9]+)?

**2)STRING:** “.+”

**3)Reserved\_Keywords:** int | float | string | read | write | repeat | until | if | elseif | else | then | return | endl

**4)comment:** /\\*.\*\\*/

**5)Identifiers:** [a-z|A-z|\_]+([a-z|A-z|\_]|[0-9])\*

**6) Function\_Call:** Identifiers\( Identifiers (,Identifiers)\*? \)

**7)term:** NUMBER| Identifiers| Function\_Call

**8) Arithmatic\_Operator:** (+ | - | \* | / )

**AB**: \) (Arithmatic\_Operator term)\*

**BB:** (term Arithmatic\_Operator)\* \(

**Mid:**term (Arithmatic\_Operator term)+

**9) Equation:** BB\* Mid AB\*

**10) Expression:** STRING| Term | Equation

**11) Assignment\_Statement:** Identifiers := Expression

**12) Datatype:** int|float|string

**13) Declaration\_Statement:** Datatype Identifiers(:= Expression)? (, (Identifiers| Assignment\_Statement)\* ;

**14) Write\_Statement:** write (Expression|endl) ;

**15) Read\_Statement:** read Identifiers ;

**16) Return\_Statement:** return Expression ;

**17) Condition\_Operator:** <|>|<>|=

**18) Condition:** Identifiers Condition\_Operator term

**19) Boolean\_Operator:** && | \|\|

**20) Condition\_Statement:** **Condition (**Boolean\_Operator Condition )\*

**21) If\_Statement:** if Condition\_Statement then (statements)\* (Else\_If\_Statment | Else\_Statment |end)

**22) Else\_If\_Statement:** elseif Condition\_Statement then (statements)\* (Else\_If\_Statment | Else\_Statment |end)

**23) Else\_Statement:** else (statements)\* end

**24) Repeat\_Statement:** repeat (statements)\* until **Condition\_Statement**

**25) FunctionName:** **Identifiers**

**26) Parameter:** Datatype Identifier

**27) Function\_Declaration**: Datatype FunctionName \( Parameter (,Parameter)\* \)

**28) Function\_Body**: \ { (statements)\* Return\_Statement \}

**29) Function\_Statement:** Function\_Declaration Function\_Body

**30) Main\_Function:** Datatype main \(\) Function\_Body

**31) Program:** (Function\_Statement)\* Main\_Function