## Γραμματική της ΕΕL

```
::= program id <block> endprogram
program>
<blook>
                   ::= <declarations> <subprograms> <statements>
<declarations>
                   ::= ε | declare <varlist> enddeclare
<varlist>
                   := \epsilon \mid id (, id)^*
<subprograms>
                   ::= ( corfunc> ) *
corfunc>
                   ::= procedure id procorfuncbody> endprocedure |
                                      function id rocorfuncbody> endfunction
corfuncbody>::= <formalpars> <block>
<formalpars>
                   ::= ( <formalparlist> )
                   ::= <formalparitem> ( , <formalparitem> )* | \epsilon
<formalparlist>
                   ::= in id | inout id
<formalparitem>
                   ::= <statement> (; <statement>)*
<statements>
<statement>
                   ::=ε|
                                      <assignment-stat> |
                                      <if-stat> |
                                      <while-stat> |
                                       <repeat-stat> |
                                       <exit-stat> |
                                       <switch-stat> |
                                       <forcase-stat> |
                                       <call-stat> |
                                       <return-stat> |
                                       <input-stat> |
                                       <print-stat>
<assignment-stat> ::= id := <expression>
<if-stat>
                   ::= if <condition> then <statements> <elsepart> endif
                   ::= ε | else <statements>
<elsepart>
<repeat-stat>
                   ::= repeat <statements> endrepeat
```

```
<exit-stat>
                    ::= exit
<while-stat>
                    ::= while <condition> <statements> endwhile
<switch-stat>
                    ::= switch <expression>
                              ( case <expression>: <statements>)+
                    endswitch
<forcase-stat>
                    ::= forcase
                              ( when <condition>: <statements>)+
                    endforcase
<call-stat>
                    ::= call id <actualpars>
<return-stat>
                    ::= return <expression>
<print-stat>
                    ::= print <expression>
                    ::= input id
<input-stat>
                    ::= ( <actualparlist> )
<actualpars>
                    ::= <actualparitem> ( , <actualparitem> )* | ε
<actualparlist>
                    ::= in <expression> | inout id
<actualparitem>
<return-stat>
                    ::= return <expression>
<condition>
                    ::= <boolterm> (or <boolterm>)*
                    ::= <boolfactor> (and <boolfactor>)*
<boolterm>
                    ::=\!\textbf{not} \ [<\! \texttt{condition}>] \ | \ [<\! \texttt{condition}>] \ |
<booksigery
                                        <expression> <relational-oper> <expression> |
                                        true | false
                    ::= <optional-sign> <term> ( <add-oper> <term>)*
<expression>
                    ::= <factor> (<mul-oper> <factor>)*
<term>
                    ::= constant | (<expression>) | id <idtail>
<factor>
<idtail>
                    ::= ε | <actualpars>
<relational-oper> ::= = | <= | >= | > | < | <>
<add-oper>
                              ::= + | -
<mul-oper>
                              ::= * | /
                    ::= ε | <add-oper>
<optional-sign>
```