|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 非终结符 |  | 输入符号 | | | | | | | | | | | | | | | | | | | | |
| begin | | end | integer | read | write | identifier | if | function | ； | const | < /<=/<> | >/>= | \* | ( | ) | then | else | - | = | # |
| S | S-> begin A B end | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  | |  | A-> C； A` |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A` |  | |  | A`->C;A` | A`->ε | A`->ε | A`->ε | A`->ε |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B |  | |  |  | B -> D; B` | B -> D; B` | B -> D; B` | B -> D; B` |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B` |  | | B` -> ε |  | B` -> D ;B` | B` -> D ;B` | B` -> D ;B` | B` -> D ;B` |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  | |  | C -> integerC` |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C` |  | |  |  |  |  | C`-> identifier |  | C`-> function identifier(identifier);body |  |  |  |  |  |  |  |  |  |  |  |  |
| body | body ->begin A B end | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  | |  |  | D->read identifier | D->write identifier | D-> identifier := E | D-> if F then D else D |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E |  | |  |  |  |  | E -> HE` |  |  |  | E -> HE` |  |  |  |  |  |  |  |  |  |  |
| E` |  | |  |  |  |  |  |  |  | E` -> ε |  | E` -> ε | E` -> ε |  |  | E` -> ε | E` -> ε | E` -> ε | E` -> -HE` | E` -> ε |  |
| F |  | |  |  |  |  | F-> E G E |  |  |  | F-> E G E |  |  |  |  |  |  |  |  |  |  |
| G |  | |  |  |  |  |  |  |  |  |  | G -> <| <=| <> | G -> >=|> |  |  |  |  |  |  | G -> = |  |
| H |  | |  |  |  |  | H -> K H` |  |  |  | H -> K H` |  |  |  |  |  |  |  |  |  |  |
| H` |  | |  |  |  |  |  |  |  | H` -> ε |  | H` -> ε | H` -> ε | H` -> \*K H` |  | H` -> ε | H` -> ε | H` -> ε | H` -> ε | H` -> ε |  |
| K |  | |  |  |  |  | K -> identifierK` |  |  |  | K -> Const |  |  |  |  |  |  |  |  |  |  |
| K` |  | |  |  |  |  |  |  |  | K`->ε |  | K`->ε | K`->ε |  | K`->(identifier) | K`->ε | K`->ε | K`->ε | K`->ε | K`->ε |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | S | A | A` | B | B` | C | C` | body | D | E | E` | F | G | H | H` | K | K` |
| FIRST | begin | integer | ε,  integer | read，  write，  identifier，  if | ε,  read，  write，  identifier，  if | integer | identifier,  function | begin | read，  write，  identifier，  if | identifier,  Const | -，ε | identifier,  Const | <,>,= | identifier,  Const | \*,ε | identifier,  Const | (,  ε |
| FOLLOW | # | read，  write，  identifier，  if | read，  write，  identifier，  if | end | end | ; | ; | ; | ;  else | then,  <,>,=  ;  else,  ) | then,  <,>,=  ;  else,  ) | then | identifier,  Const | then,  <,>,=  -  ;  else  ) | then,  <,>,=  -  ;  else  ) | then,  <,>,=  -,\*  ;  else  ) | then,  <,>,=  -,\*  ;  else  ) |