|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **integer** | **while** | **if** | **else** | **read** | **write** | **#** | **=** | **/** | **\*** | **+** | **-** | **[** | **]** | **(** | **)** | **<** | **>** | **;** | **{** | **}** | **a** |
| **A** | integer BA | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| n□□ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | aH |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | a□ |
| **S** | λ | while(D) do T;S | if (D) TE;S | λ | read(aH);S | write(Q);S | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
|  | □<jf>□<j> | □<jf>□□ |  | □<w> | □<r> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **T** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | {S} |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | □□□ |  |  |
| **D** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)LUJ |  |  |  |  |  |  | aHLUJ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | □□□□□□ |  |  |  |  |  |  | a□□□□ |
| **J** |  |  |  |  |  |  |  | =Q' |  |  |  |  |  |  |  |  | >Q | <Q |  |  |  |  |
|  |  |  |  |  |  |  | □= |  |  |  |  |  |  |  |  | □> | □< |  |  |  |  |
| **E** | λ | λ | λ | else T | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
|  |  |  | <j>□ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Q** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)LU |  |  |  |  |  |  | aHLU |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | □□□□□ |  |  |  |  |  |  | a□□□ |
| **L** | λ | λ | λ | λ | λ | λ | λ | λ | /YL | \*YL | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
|  |  |  |  |  |  |  |  | □□/ | □□\* |  |  |  |  |  |  |  |  |  |  |  |  |
| **U** | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | +MU | -MU | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
|  |  |  |  |  |  |  |  |  |  | □□+ | □□- |  |  |  |  |  |  |  |  |  |  |
| **M** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)L |  |  |  |  |  |  | aHL |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | □□□□ |  |  |  |  |  |  | a□□ |
| **Y** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q) |  |  |  |  |  |  | aH |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | □□□ |  |  |  |  |  |  | a□ |
| **H** | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | [Q] | λ | λ | λ | λ | λ | λ | λ | λ | λ |
|  |  |  |  |  |  |  |  |  |  |  |  | □□□ |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **integer** | **while** | **if** | **else** | **read** | **write** | **#** | **=** | **/** | **\*** | **+** | **-** | **[** | **]** | **(** | **)** | **<** | **>** | **;** | **{** | **}** | **a** |
| **A** | integer BA | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| **B** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | aH |
| **S** | λ | while(D) do T;S | if (D) TE;S | λ | read(aH);S | write(Q);S | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| **T** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | {S} |  |  |
| **D** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)LUJ |  |  |  |  |  |  | aHLUJ |
| **J** |  |  |  |  |  |  |  | =Q' |  |  |  |  |  |  |  |  | >Q | <Q |  |  |  |  |
| **E** | λ | λ | λ | else T | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| **Q** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)LU |  |  |  |  |  |  | aHLU |
| **L** | λ | λ | λ | λ | λ | λ | λ | λ | /YL | \*YL | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| **U** | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | +MU | -MU | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ |
| **M** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q)L |  |  |  |  |  |  | aHL |
| **Y** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (Q) |  |  |  |  |  |  | aH |
| **H** | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | λ | [Q] | λ | λ | λ | λ | λ | λ | λ | λ | λ |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **<б>** | **<ц>** | **" "/табул** | **#** | **=** | **/** | **\*** | **+** | **-** | **[** | **]** | **(** | **)** | **<** | **>** | **;** | **{** | **}** | **<<другое>>** | **<<переход>>** | **&** | **,** |
| **S** | A/0 | B/2 | S/18 | F/4 | F/5 | F/6 | F/7 | F/8 | F/9 | F/20 | F/17 | F/10 | F/11 | F/12 | F/13 | F/26 | F/27 | F/28 | C/19 | S/24 | F/14 | F/29 |
| **A** | A/1 | C/21 | F/15 | F/15 | F/15 | F/15 | F/15 | F/15 | F/15 | F/15 | F/15 | F/15 | C/23 | F/15 | F/15 | F/15 | F/15 | F/15 | C/19 | F/25 | F/15 | F/15 |
| **B** | С/21 | B/3 | F/16 | C/23 | F/16 | F/16 | F/16 | F/16 | F/16 | C/23 | C/23 | C/23 | C/23 | F/16 | F/16 | F/16 | C/23 | F/23 | C/19 | F/22 | F/16 | C/23 |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Семантические программы:** | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **символ** | **ASCII код** |  |  |
| **0** | Начало лексемы | | | | | | | S - начальное состояние | | | | | | | |  |  |  | переход | 10 |  |  |
| **1** | Продолжение лексемы id | | | | | | | F - правильное конечное состояние | | | | | | | |  |  |  | табуляция | 9 |  |  |
| **2** | Начало константы | | | | | | | C - ошибочное конечное состояние | | | | | | | |  |  |  | пробел | 32 |  |  |
| **3** | Накопление константы | | | | | | |  |  |  |  |  |  |  |  |  |  |  | # | 35 |  |  |
| **4** | Распознано # | | | | | | |  |  |  |  |  |  |  |  |  |  |  | & | 38 |  |  |
| **5** | Распознано = | | | | | | |  |  |  |  |  |  |  |  |  |  |  | ( | 40 |  |  |
| **6** | Распознано / | | | | | | |  |  |  |  |  |  |  |  |  |  |  | ) | 41 |  |  |
| **7** | Распознано \* | | | | | | |  |  |  |  |  |  |  |  |  |  |  | \* | 42 |  |  |
| **8** | Распознан + | | | | | | |  |  |  |  |  |  |  |  |  |  |  | + | 43 |  |  |
| **9** | Распознан - | | | | | | |  |  |  |  |  |  |  |  |  |  |  | , | 44 |  |  |
| **10** | Распознана ( | | | | | | |  |  |  |  |  |  |  |  |  |  |  | - | 45 |  |  |
| **11** | Распознана ) | | | | | | |  |  |  |  |  |  |  |  |  |  |  | / | 47 |  |  |
| **12** | Распознан < | | | | | | |  |  |  |  |  |  |  |  |  |  |  | <ц> | 48-57 |  |  |
| **13** | Распознан > | | | | | | |  |  |  |  |  |  |  |  |  |  |  | < | 60 |  |  |
| **14** | Конец файла | | | | | | |  |  |  |  |  |  |  |  |  |  |  | = | 61 |  |  |
| **15** | Распознано имя | | | | | | |  |  |  |  |  |  |  |  |  |  |  | > | 62 |  |  |
| **16** | Распознана константа | | | | | | |  |  |  |  |  |  |  |  |  |  |  | A-Z | 65-90 |  |  |
| **17** | Распознанa ] | | | | | | |  |  |  |  |  |  |  |  |  |  |  | [ | 91 |  |  |
| **18** | Пропуск символа | | | | | | |  |  |  |  |  |  |  |  |  |  |  | ] | 93 |  |  |
| **19** | Встретился другой символ | | | | | | |  |  |  |  |  |  |  |  |  |  |  | ; | 59 |  |  |
| **20** | Распознанa [ | | | | | | |  |  |  |  |  |  |  |  |  |  |  | a-z | 97-122 |  |  |
| **21** | Неверная лексема | | | | | | |  |  |  |  |  |  |  |  |  |  |  | { | 123 |  |  |
| **22** | Распознана константа, переход на новую строку | | | | | | |  |  |  |  |  |  |  |  |  |  |  | } | 125 |  |  |
| **23** | Другая ошибка | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **24** | Переход на новую строку | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **25** | Распознано имя, переход на новую строку | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **26** | Распознана . | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **27** | Распознана { | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **28** | Распознана } | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **29** | Распознана , | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |