**EJEMPLO 1**

Gramática

1 program: stmtlist

2 stmtlist: %empty

3 | stmtlist '\n'

4 | stmtlist exp '\n'

5 | stmtlist error '\n'

6 exp: NUMBER

7 | exp '+' exp

8 | exp '-' exp

9 | exp '\*' exp

10 | exp '/' exp

11 | '(' exp ')'

**TABLA DE ANÁLISIS SINTÁCTICO LALR**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ACCIÓN** | | | | | | | | | |  | **IR\_A** | | |
| **Estado** | **\n** | **NUMBER** | **+** | **-** | **\*** | **/** | **(** | **)** | **$** | error |  | program | stmtlist | exp |
| **0** | r 2 | r 2 | r 2 | r 2 | r 2 | r 2 | r 2 | r 2 | r 2 | r 2 |  | 1 | 2 |  |
| **1** |  |  |  |  |  |  |  |  | d3 |  |  |  |  |  |
| **2** | d6 | d5 |  |  |  |  | d7 |  | r1 | d4 |  |  |  | 8 |
| **3** | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR | ACEPTAR |  |  |  |  |
| **4** | d9 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | r6 | r6 | r6 | r6 | r6 | r6 | r6 | r6 | r6 | r6 |  |  |  |  |
| **6** | r3 | r3 | r3 | r3 | r3 | r3 | r3 | r3 | r3 | r3 |  |  |  |  |
| **7** |  | d5 |  |  |  |  | d7 |  |  |  |  |  |  | 10 |
| **8** | d15 |  | d11 | d12 | d13 | d14 |  |  |  |  |  |  |  |  |
| **9** | r5 | r5 | r5 | r5 | r5 | r5 | r5 | r5 | r5 | r5 |  |  |  |  |
| **10** |  |  | d11 | d12 | d13 | d14 |  | d16 |  |  |  |  |  |  |
| **11** |  | d5 |  |  |  |  | d7 |  |  |  |  |  |  | 17 |
| **12** |  | d5 |  |  |  |  | d7 |  |  |  |  |  |  | 18 |
| **13** |  | d5 |  |  |  |  | d7 |  |  |  |  |  |  | 19 |
| **14** |  | d5 |  |  |  |  | d7 |  |  |  |  |  |  | 20 |
| **15** | r4 | r4 | r4 | r4 | r4 | r4 | r4 | r4 | r4 | r4 |  |  |  |  |
| **16** | r11 | r11 | r11 | r11 | r11 | r11 | r11 | r11 | r11 | r11 |  |  |  |  |
| **17** | r7 | r7 | r7 | r7 | d13 | d14 | r7 | r7 | r7 | r7 |  |  |  |  |
| **18** | r8 | r8 | r8 | r8 | d13 | d14 | r8 | r8 | r8 | r8 |  |  |  |  |
| **19** | r9 | r9 | r9 | r9 | r9 | r9 | r9 | r9 | r9 | r9 |  |  |  |  |
| **20** | r10 | r10 | r10 | r10 | r10 | r10 | r10 | r10 | r10 | r10 |  |  |  |  |

**EJEMPLO DE ANÁLISIS SINTÁCTICO**

|  |  |  |
| --- | --- | --- |
| **PILA** | **ENTRADA** | **ACCIÓN** |
| 0 | NUMBER + NUMBER \* NUMBER \n $ | r 2: stmtlist🡪 ε |
| 0 stmtlist 2 | NUMBER + NUMBER \* NUMBER \n $ | d 5 |
| 0 stmtlist 2 NUMBER 5 | + NUMBER \* NUMBER \n $ | r 6: exp 🡪 NUMBER |
| 0 stmtlist 2 exp 8 | + NUMBER \* NUMBER\n $ | d 11 |
| 0 stmtlist 2 exp 8 + 11 | NUMBER \* NUMBER \n $ | d 5 |
| 0 stmtlist 2 exp 8 + 11 NUMBER 5 | \* NUMBER \n $ | r 6: exp 🡪 NUMBER |
| 0 stmtlist 2 exp 8 + 11 exp 17 | \* NUMBER \n $ | d 13 |
| 0 stmtlist 2 exp 8 + 11 exp 17 \* 13 | NUMBER \n $ | d 5 |
| 0 stmtlist 2 exp 8 + 11 exp 17 \* 13 NUMBER 5 | \n $ | r 6: exp 🡪 NUMBER |
| 0 stmtlist 2 exp 8 + 11 exp 17 \* 13 exp 19 | \n $ | r 9: exp 🡪 exp ‘\*’ exp |
| 0 stmtlist 2 exp 8 + 11 exp 17 | \n $ | r 7: exp 🡪 exp ‘+’ exp |
| 0 stmtlist 2 exp 8 | \n $ | d 15 |
| 0 stmtlist 2 exp 8 \n 15 | $ | r 4: stmtlist 🡪 stmtlist exp '\n' |
| 0 stmtlist 2 | $ | r 1: program🡪 stmtlist |
| 0 program 1 | $ | d 3 |
| 0 program 1 $ 3 |  | **Aceptar** |