|  |  |  |
| --- | --- | --- |
| **Stack** | **String** | **Derivation** |
| $E | a\*(a+a)$ | Table{E, a} = TE’ |
| $E’T | a\*(a+a)$ | Table{T, a} = FT’ |
| $E’T’F | a\*(a+a)$ | Table{F, a} = a |
| $E’T’a | a\*(a+a)$ | pop a |
| $E’T’ | \*(a+a)$ | Table{T’, \*} = \*FT’ |
| $E’T’F\* | \*(a+a)$ | pop \* |
| $E’T’F | (a+a)$ | Table{F, (} = (E) |
| $E’T’)E( | (a+a)$ | pop ( |
| $E’T’)E | a+a)$ | Table{E, a} = TE’ |
| $E’T’)E’T | a+a)$ | Table{T, a} = FT’ |
| $E’T’)E’T’F | a+a)$ | Table{F, a} = a |
| $E’T’)E’T’a | a+a)$ | pop a |
| $E’T’)E’T’ | +a)$ | Table{T’, +} = λ |
| $E’T’)E’ | +a)$ | Table{E’, +} = +TE’ |
| $E’T’)E’T+ | +a)$ | pop + |
| $E’T’)E’T | a)$ | Table{T, a} = FT’ |
| $E’T’)E’T’F | a)$ | Table{F, a} = a |
| $E’T’)E’T’a | a)$ | pop a |
| $E’T’)E’T’ | )$ | Table{T, )} = λ |
| $E’T’)E’ | )$ | Table{E, )} = λ |
| $E’T’) | )$ | pop ) |
| $E’T’ | $ | Table{T’, $} = λ |
| $E’ | $ | Table{E’, $} = λ |
| $ | $ | accepted |

Part c of a, Predictive Parsing Table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | + | \* | ( | ) | a | $ |
| E |  |  | TE’ |  | TE’ |  |
| E’ | +TE’ |  |  | λ |  | λ |
| T |  |  | FT’ |  | FT’ |  |
| T’ | λ | \*FT’ |  | λ |  | λ |
| F |  |  | (E) |  | a |  |

Part d of a, tracing table: