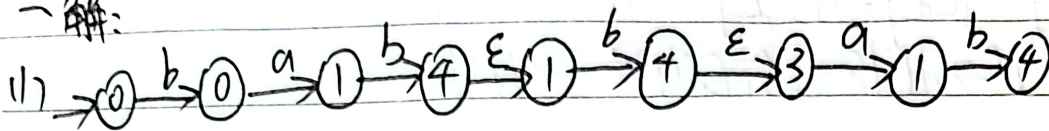


一解:



2) $A = \varepsilon\text{-closure}(\{0\}) = \{0, 3, 2\}$

	a	b
$A\{0, 3, 2\}$	$B\{1\}$	$A\{0, 3, 2\}$
$B\{1\}$	\emptyset	$C\{3, 4, 5, 2, 1\}$
$C\{3, 4, 5, 2, 1\}$	$B\{1\}$	$C\{3, 4, 5, 2, 1\}$

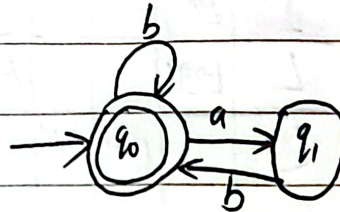
有: $A = \{0, 3, 2\}$

$B = \{1\}$

$C = \{3, 4, 5, 2, 1\}$

3) $A \xrightarrow{a} q_0, B \rightarrow q_1$

	a	b
q_0	q_1	q_0
q_1	\emptyset	q_1



4) 由若干b和ab组成的可空字符串

5) $r = (b|ab)^+$

二解: ① X无直接左递归也无前置终结符

② $Y \rightarrow Zd | Yae | Zbe | ce | f$

消递归: $Y \rightarrow ZdY' | ZbeY' | ceY' | fY'$

$Y' \rightarrow aeY' | \varepsilon$

③ 对于Z有 $Z \rightarrow ceY'acs | fr'acs | ceS | ceY'fs | fr'fs | as$

$S \rightarrow dr'acs | beY'acs | bcS | dr'fs | beY'fs | \varepsilon$

④ 则: $Y \rightarrow ZdY' | ZbeY' | ceY' | fY'$

$Y' \rightarrow aeY' | \varepsilon \quad Z \rightarrow ceY'acs | fr'acs | ceS | ceY'fs | fr'fs | as$

$S \rightarrow dr'acs | beY'acs | bcS | dr'fs | beY'fs | \varepsilon$

X不可达, 上式为结果

三、解：(1) $I \Rightarrow \{L\} \Rightarrow \{L, L\} \Rightarrow \{I, L\} \Rightarrow \{L, L\} \Rightarrow \{n\}, L\} \Rightarrow \{n\}, I\} \Rightarrow \{n\}, n\}$

(2) $L \rightarrow IL'$ $L' \rightarrow , LL' | \epsilon$, 有 $G'(I)$ 为 $I \rightarrow \{L\} | n$

$L \rightarrow IL'$

$L' \rightarrow , LL' | \epsilon$

B) $\text{First}(I) = \{ \{, n \}$ $\text{Follow}(I) = \{ \# , ', \} \}$

$\text{First}(L) = \{ \{, n \}$ $\text{Follow}(L) = \{ ', \} \}$

$\text{First}(L') = \{ ', \epsilon \}$ $\text{Follow}(L') = \{ ', \} \}$

(4)

	{	}	,	n	#
I	$I \rightarrow \{$			$I \rightarrow n$	
L	$L \rightarrow IL'$			$L \rightarrow IL'$	
L'		$L' \rightarrow ,$	$L' \rightarrow LL'$		

不是 LL(1) 文法

(5) stack 输入串

stack	输入串		stack	输入串	
$I\#$	$\{n\}, n\#$		$IL'L'\#$	$n\#$	$L \rightarrow IL'$
$\{L\}\#$	$\{n\}, n\#$	$I \rightarrow \{L\}$	$nL'L'\#$	$n\#$	$I \rightarrow n$
$L\}\#$	$\{n\}, n\#$	匹配{	$L'L'\#$	$\#$	匹配n
$IL'\}\#$	$\{n\}, n\#$	$L \rightarrow IL'$	$L'\}\#$	$\#$	$L' \rightarrow \epsilon$
$\{L\}L'\}\#$	$\{n\}, n\#$	$I \rightarrow \{L\}$	$\}\#$	$\#$	$L' \rightarrow \epsilon$
$L\}L'\}\#$	$n\}, n\#$	匹配{	$\#$	$\#$	匹配}
$IL'\}L'\}\#$	$n\}, n\#$	$L \rightarrow IL'$	$\#$	$\#$	完成接收
$nL'\}L'\}\#$	$n\}, n\#$	$I \rightarrow n$			
$L'\}L'\}\#$	$\}, n\#$	匹配n			
$\}L'\}\#$	$\}, n\#$	$L' \rightarrow \epsilon$			
$L'\}\#$	$\}, n\#$	匹配}			
$,LL'\}\#$	$\}, n\#$	$L' \rightarrow ,LL'$			
$LL'\}\#$	$n\#$	匹配,			

轮值组长: 贺文/乱