

LL(1) GRAMMAR

$G = (N, T, P, S)$

$T = \{id, num, (,), ;, if, else, \$\}$

$N = \{S', S, L, C, E\}$

$P =$ set of following productions:

(0)	$S' \rightarrow S\$$	$First(S\$)$	$= \{if, id\}$
(1)	$S \rightarrow id(L);$	$First(id(L))$	$= \{id\}$
(2)	$S \rightarrow if(E)S \text{ else } S$	$First(if(E)S \text{ else } S)$	$= \{if\}$
(3)	$L \rightarrow \epsilon$	$First(\epsilon)$	$= \{\epsilon\}$
(4)	$L \rightarrow EC$	$First(EC)$	$= \{id, num\}$
(5)	$C \rightarrow \epsilon$	$First(\epsilon)$	$= \{\epsilon\}$
(6)	$C \rightarrow , EC$	$First(, EC)$	$= \{,\}$
(7)	$E \rightarrow id$	$First(id)$	$= \{id\}$
(8)	$E \rightarrow num$	$First(num)$	$= \{num\}$

LL(1) TABLE

	id	num	()	;	if	else	,	\$
S'	$S\$$					$S\$$			
S	$id(L);$					$if(E)S \text{ else } S$			
L	EC	EC		ϵ					
C				ϵ				$, EC$	
E	id	num							

FIRST AND FOLLOW SETS

	S'	S	L	C	E
First	$\{if, id\}$	$\{if, id\}$	$\{\epsilon, id, num\}$	$\{\epsilon, ,\}$	$\{id, num\}$
Follow	$\{\}$	$\{\$, else\}$	$\{)\}$	$\{)\}$	$\{), ,\}$