

E05: Nullable, FIRST, FOLLOW

solutions

E05-1: Solution:

(a) Nullable, FIRST, and FOLLOW:

Nonterminal	Nullable	FIRST set	FOLLOW set
S	false	{ ID, "(" }	\emptyset
T	false	{ ID, "(" }	{ \$, ", ", ")" }
L	false	{ ID, "(" }	{ ")" }
R	true	{ ", " }	{ ")" }

(b) LL(1) table:

	ID	"(")"	", "	\$
S	p1	p1			
T	p2	p3			
L	p4	p4			
R			p6	p5	

(c) Yes, the grammar is LL(1) since there are no conflicts in the table: each table element contains at most one production.