

The diagram illustrates the LR(0) item set diagram for the grammar. It shows 17 states (State 0 to State 17) arranged in a grid-like fashion. Each state is a table with two columns: the left for LR(0) items and the right for transitions (Goto or Shift/Reduce). Transitions are labeled with grammar symbols: \$, StmtList, Stmt, Var, id, lb, T, lp, rb, plus, and rp. The diagram illustrates the state transitions for the given grammar, including the initial State 0 and the final State 17.

2.

State	assign	id	lb	rb	plus	lp	rp	\$	Prog	StmtList	Stmt	Var	Expr	T
0									accept	1				
1		5						2			3	4		
2								1						
3		2						2						
4	6													
5	4	4	11	4	4		4	4						
6		5				10						9	7	8
7		3			12			3						
8		7		7	7		7	7						
9		8		8	8		8	8						
10		5				10						9	13	8
11		5				10						9	14	8
12		5				10						9		15
13					12		16							
14				17	12									
15		6		6	6		6	6						
16		9		9	9		9	9						
17	5	5		5	5		5	5						

3. Rule 2和3的ItemFollow皆存在else。
因此存在shift-reduce conflict, 本題文法並非LALR(1)。

4.

