Programski Prevodioci - Laboratorijska vežba 2

LR algoritam - Grupa 12

SelectStatement → **select begin** CaseList **end**
CaseList → CaseList Case | Case
Case → **case ID** => Statement
Statement → SelectStatement | **ID := ID** ; | **ID := CONST** ;

(1) SelectStatement → **select begin** CaseList **end**
(2) CaseList → CaseList Case
(3) CaseList → Case
(4) Case → **case ID** => Statement
(5) Statement → SelectStatement
(6) Statement → **ID := ID** ;
(7) Statement → **ID := CONST** ;

(1) SS → **select begin** CL **end**
(2) CL → $CL\ C$
(3) CL → C
(4) C → **case ID** => S
(5) S → SS
(6) S → **ID := ID** ;
(7) S → **ID := CONST** ;

l_0:

SS' → . SS

SS → . **select begin** CL **end**

l_1=goto(l_0, SS)

SS' → SS .

l_2=goto(l_0, select)

SS → **select** . **begin** CL **end**

l_3=goto(l_2, begin)

SS → **select begin** . CL **end**

CL → . $CL\ C$

CL → . C

C → . **case ID**=>S

l_4=goto(l_3, CL)

SS → **select begin** CL . **end**

CL → CL . C

C → . **case ID**=>S

l_7=goto(l_3, C)

CL → C .

l_8=goto(l_3, case)

C → **case** . **ID** => S

Redukciono stanje za smenu 3

l9=goto(l8, ID)

$C \rightarrow$ **case ID .** $=> S$

l10=goto(l9, =>)

$C \rightarrow$ **case ID** =>. S

$S \rightarrow .$ SS

$S \rightarrow .$ **ID := ID** ;

$S \rightarrow .$ **ID := CONST** ;

l11=goto(l10, S)

$C \rightarrow$ **case ID** $=> S$ **.**

Redukciono stanje za smenu 4

l12=goto(l10, SS)

$S \rightarrow SS$ **.**

Redukciono stanje za smenu 5

l13=goto(l10, ID)

$S \rightarrow$ **ID .** **:= ID** ;

$S \rightarrow$ **ID .** **:= CONST** ;

l14=goto(l13, :=)

$S \rightarrow$ **ID :=** . **ID** ;

$S \rightarrow$ **ID :=** . **CONST** ;

l15=goto(l14, ID)

$S \rightarrow$ **ID := ID .** ;

l16=goto(l15, ;)

$S \rightarrow$ **ID := ID ;** **.**

Redukciono stanje za smenu 6

l17=goto(l14, CONST)

$S \rightarrow$ **ID := CONST .** ;

l18=goto(l17, ;)

$S \rightarrow$ **ID := CONST ;** **.**

Redukciono stanje za smenu 7

goto(l4, case)=l8

SS: FOLLOW(SS)={# end case }
    # ∈ FOLLOW(SS)
      (5) FOLLOW(S) ⊂ FOLLOW(SS)
      (0)FOLLOW(SS') ⊂ FOLLOW(SS)
CL: FOLLOW(CL) ={end case }
      (2) FIRST(C) ⊂ FOLLOW(CL)
      (1) END ⊂ FOLLOW(CL)
C: FOLLOW(C) ={ end case }
      (2) FOLLOW(CL) ⊂ FOLLOW(C)
      (3) FOLLOW(CL) ⊂ FOLLOW(C)
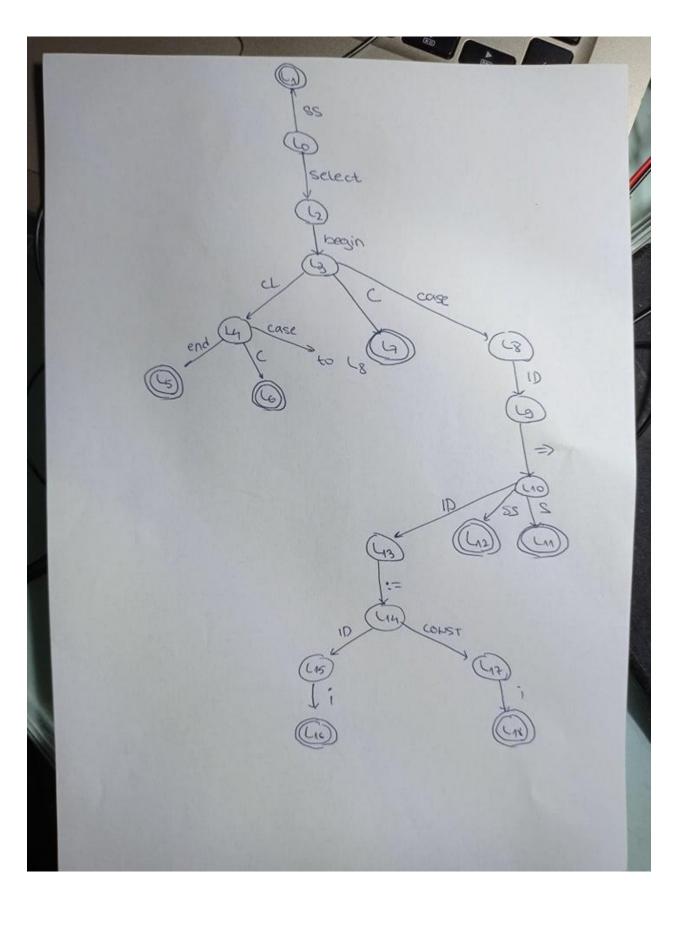S: FOLLOW(S) ={end case }
      (4) FOLLOW(C) ⊂ FOLLOW(S)

Redni br. smene	Redukciono stanje	$A \rightarrow \alpha$	FOLLOW(A)	FIRST(α)
		TABELA FOLLOW(A) I FIRST(α)		
0.	I_1	$SS' \rightarrow SS$	#	Select
1.	I_6	SS → **select begin** CL **end**	#end case	Select
2.	I_7	CL → CL C	end case	Case
3.	I_8	CL → C	end case	Case
4.	I_{12}	C → **case ID** => S	end case	Case
5.	I_{13}	S → SS	end case	Select
6.	I_{17}	S → **ID := ID ;**	end case	ID
7.	I_{19}	S→ **ID := CONST ;**	end case	ID

	select	begin	end	case	ID	=>	:=	;	CONST	#	SS	C	S	CL
0	s2										**1**			
1										**acc**				
2		**s3**												
3				s8								**7**		**4**
4			s5									**6**		
5			r1	r1						**r1**				
6			r2	r2										
7			**r3**	r3										
8					**s9**									
9						s10								
10					**s13**							**12**	**11**	
11			r4	r4										
12			r5	**r5**										
13							**s14**							
14					s15				s17					
15								s16						
16			r6	r6										
17								**s18**						
18			r7	r7										