

# CD Assignment-5

## ① CLR parsing table

$A \rightarrow BA$

$A \rightarrow \epsilon$

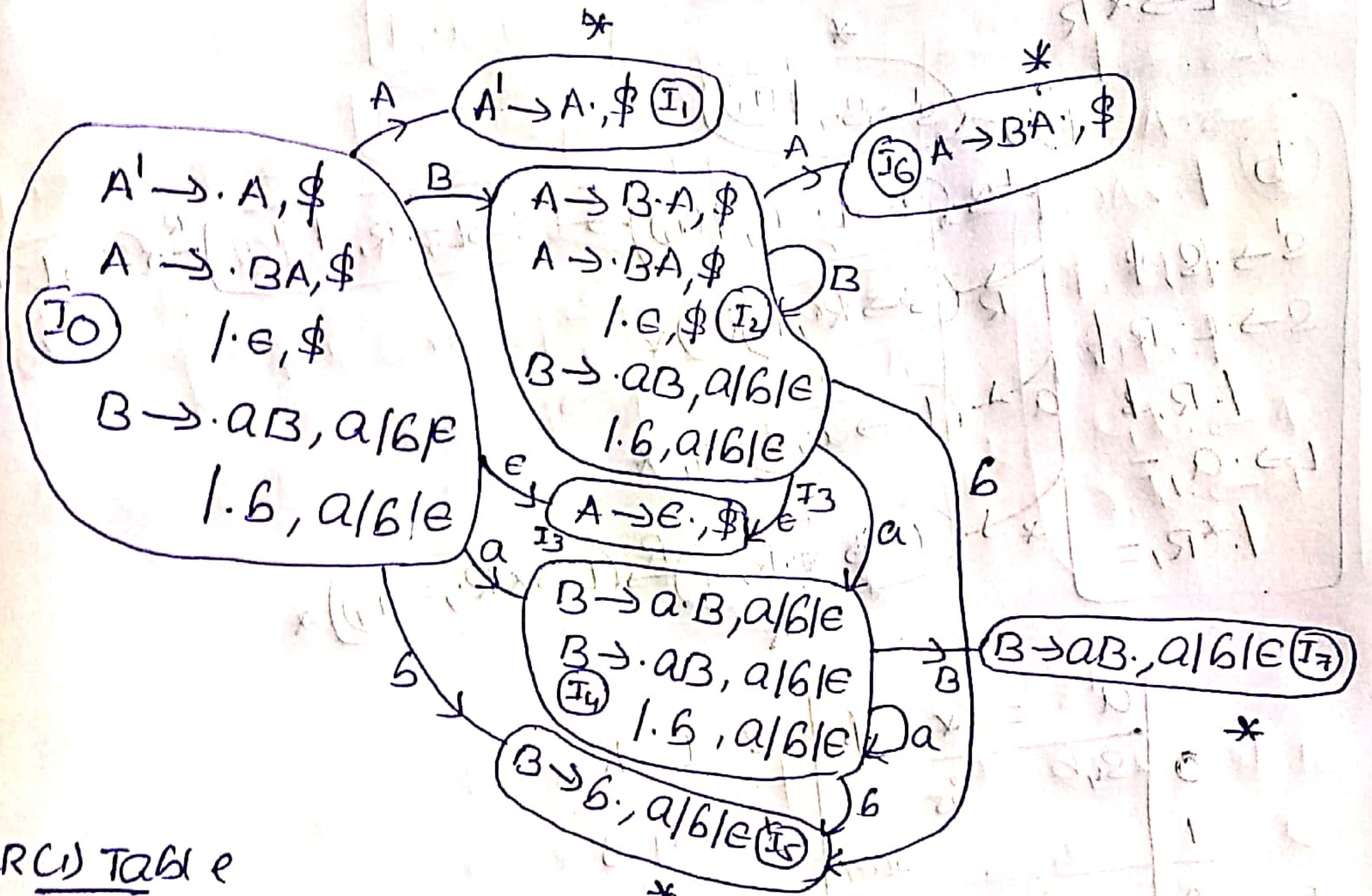
$B \rightarrow aB$

$B \rightarrow b$

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CSE-5

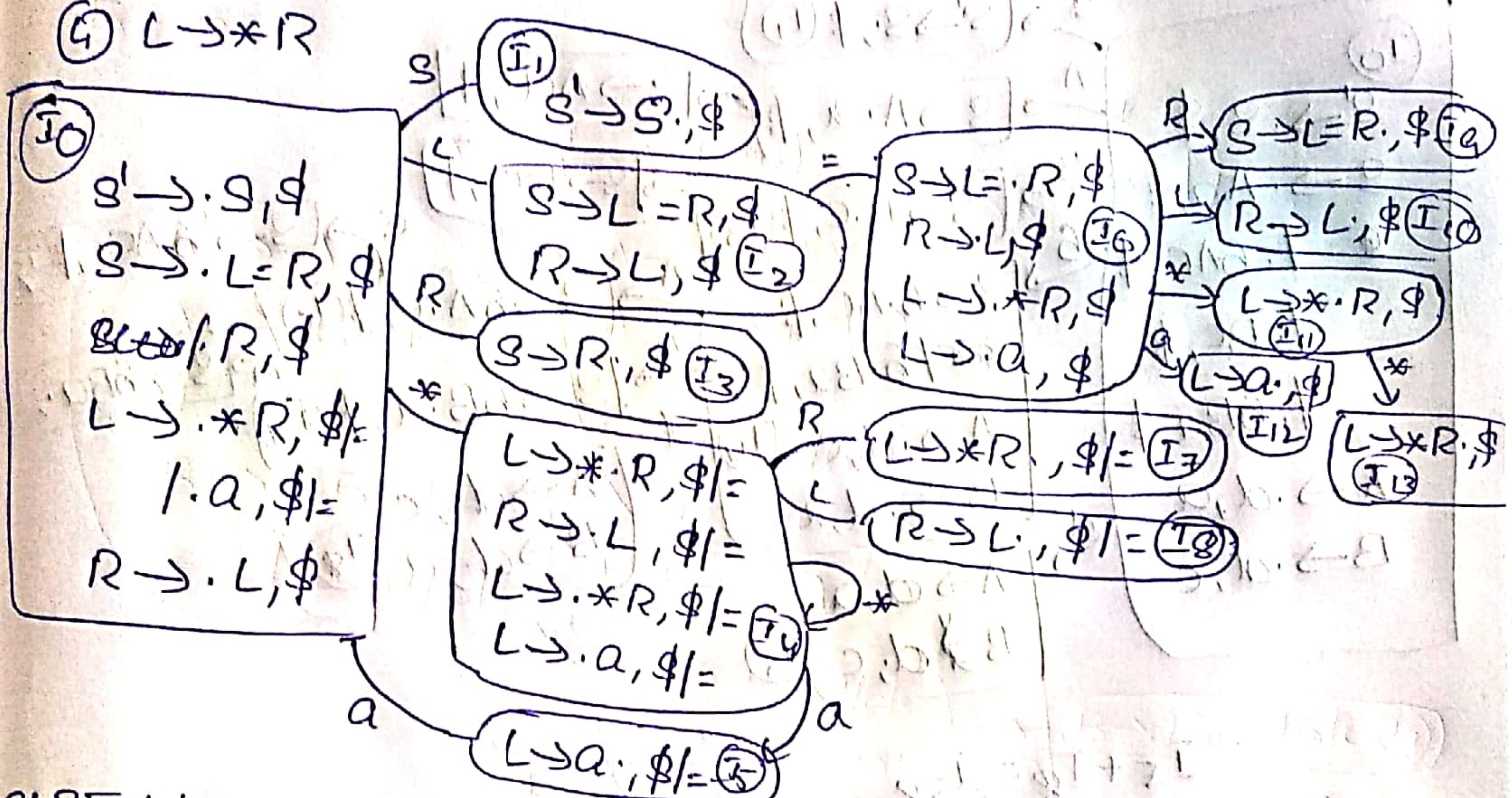


## CLR(0) Table

	a	b	$\epsilon$	\$	A	B
0	S <sub>4</sub>	S <sub>5</sub>	S <sub>3</sub>		1	2
1				accept		
2	S <sub>4</sub>	S <sub>5</sub>	S <sub>3</sub>		6	2
3			r <sub>2</sub>			
4	S <sub>4</sub>	S <sub>5</sub>				7
5	r <sub>4</sub>	r <sub>4</sub>	r <sub>4</sub>			
6				r <sub>1</sub>		
7	r <sub>3</sub>	r <sub>3</sub>	r <sub>3</sub>			



- ②  $S \rightarrow L = R / R$   
 $L \rightarrow a / * R$
- ①  $S \rightarrow L = R$   
 ②  $S \rightarrow R$   
 ③  $L \rightarrow a$   
 ④  $L \rightarrow * R$



CLRTABLE

State	a	*	=	\$	S	L	R
0	S <sub>5</sub>	S <sub>4</sub>			1	2	3
1				accept			
2			S <sub>6</sub>	R <sub>5</sub>			
3				R <sub>2</sub>			
4	S <sub>5</sub>	S <sub>4</sub>				8	7
5			R <sub>3</sub>	R <sub>3</sub>			
6	S <sub>12</sub>	S <sub>11</sub>				0	9
7			R <sub>4</sub>	R <sub>4</sub>			
8			R <sub>5</sub>	R <sub>5</sub>			
9				R <sub>1</sub>			
10				R <sub>5</sub>			
11							
12				R <sub>3</sub>			
13				R <sub>4</sub>			



3) LALR for G

$S \rightarrow Aa / bAc / Bc / bBa$

$A \rightarrow d$

$B \rightarrow d$

①  $S \rightarrow Aa$

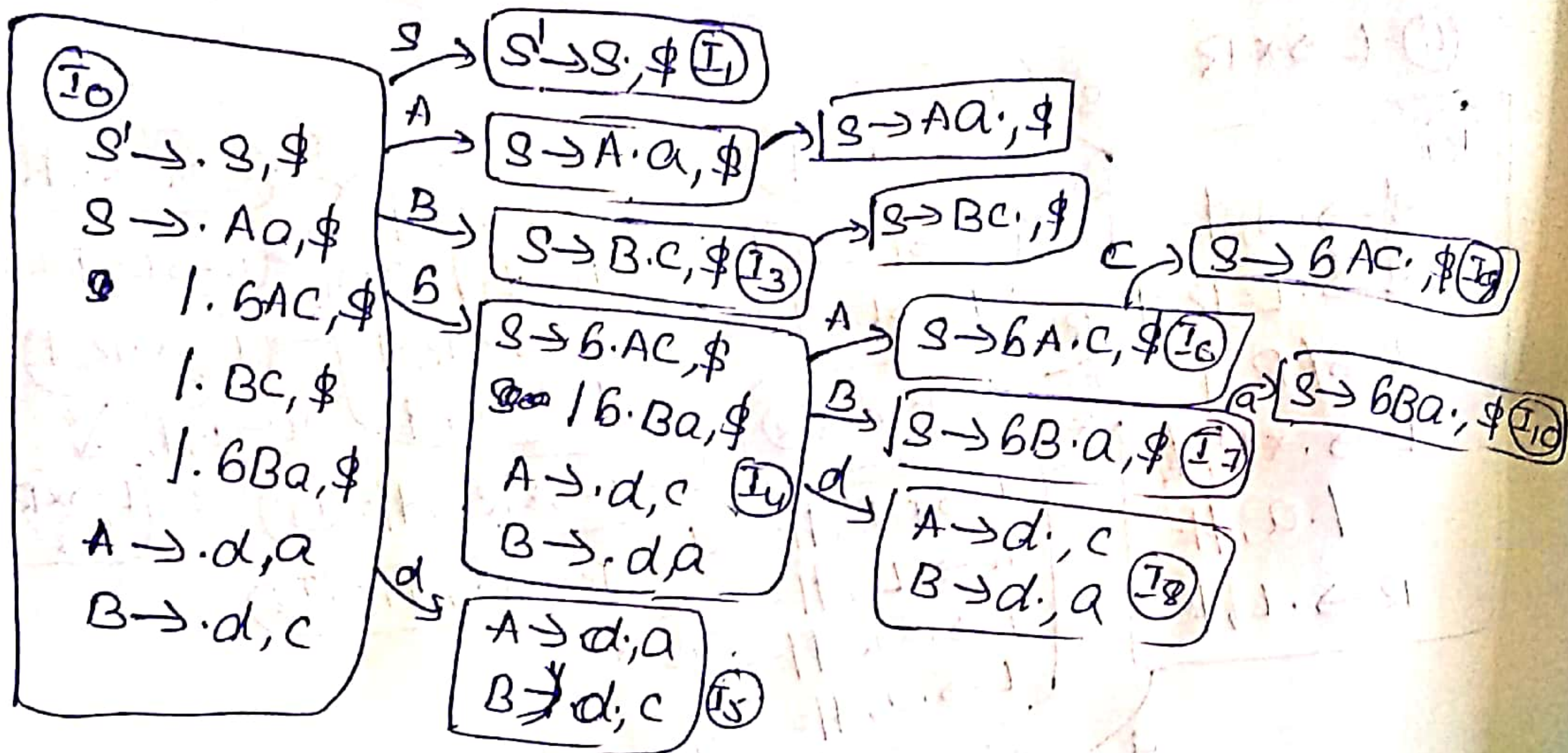
②  $S \rightarrow bAc$

③  $S \rightarrow Bc$

④  $S \rightarrow bBa$

⑤  $A \rightarrow d$

⑥  $B \rightarrow d$



$$I_5 + I_7 = I_{58}$$

LALR Table

State	a	b	c	d	\$	S	A	B
0		S4		S58		1	2	3
1					accept			
2								
3								
4				S58		6	7	
58	R5, R6		R5, R6					
6								
7								
9								
10								