

4. ① 增广文法

$$E' \rightarrow E \quad (0)$$

$$E \rightarrow E \text{ and } E \quad (1)$$

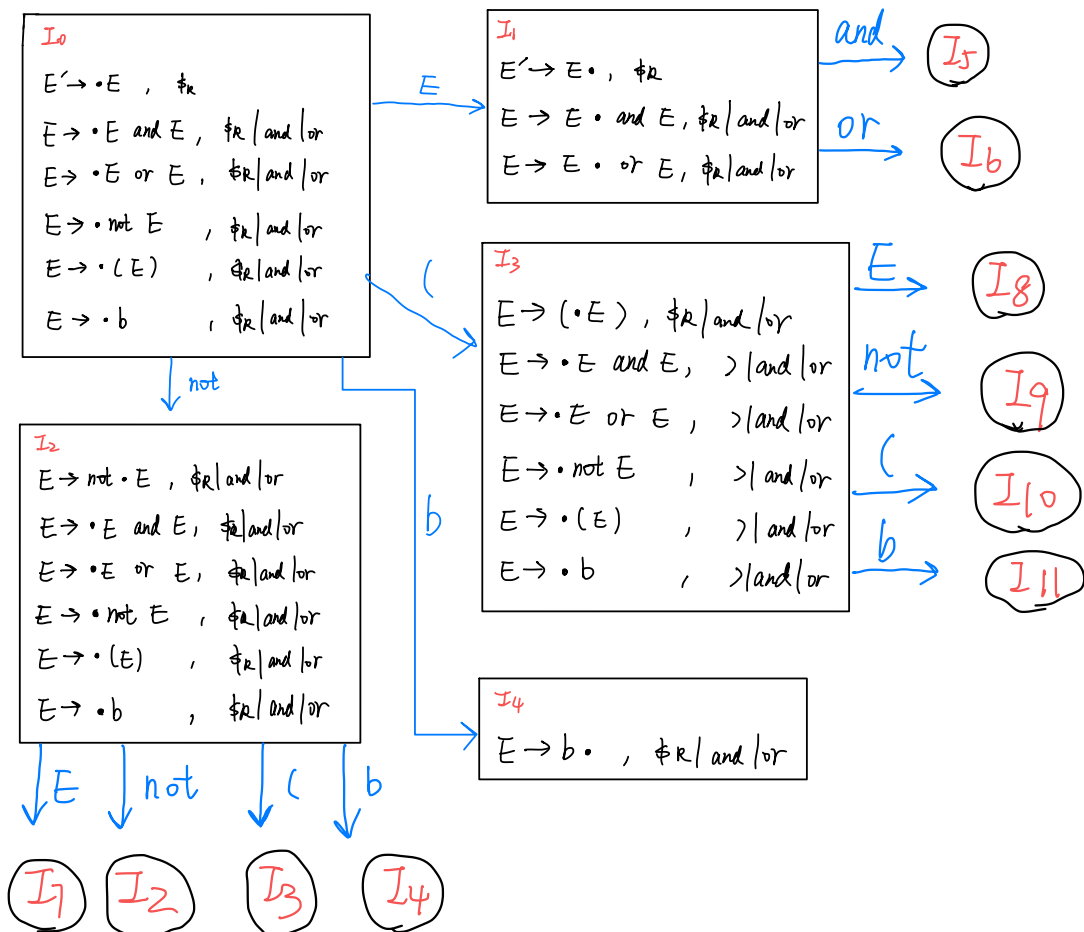
$$E \rightarrow E \text{ or } E \quad (2)$$

$$E \rightarrow \text{not } E \quad (3)$$

$$E \rightarrow (E) \quad (4)$$

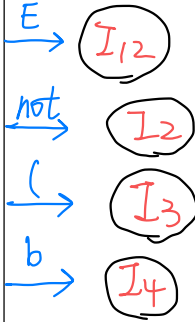
$$E \rightarrow b \quad (5)$$

②



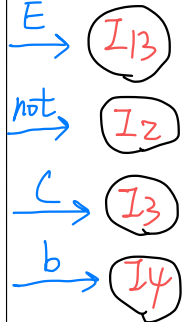
I_5

$E \rightarrow E \text{ and } \cdot E$, $\nexists R$ | and / or
 $E \rightarrow \cdot E \text{ and } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot E \text{ or } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot \text{not } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot (E)$, $\nexists R$ | and / or
 $E \rightarrow \cdot b$, $\nexists R$ | and / or



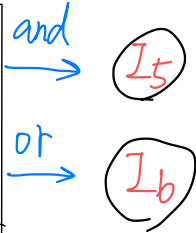
I_6

$E \rightarrow E \text{ or } \cdot E$, $\nexists R$ | and / or
 $E \rightarrow \cdot E \text{ and } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot E \text{ or } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot \text{not } E$, $\nexists R$ | and / or
 $E \rightarrow \cdot (E)$, $\nexists R$ | and / or
 $E \rightarrow \cdot b$, $\nexists R$ | and / or



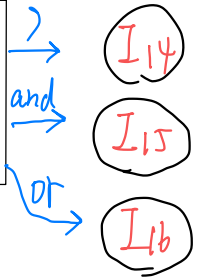
I_7

$E \rightarrow \text{not } E \cdot$, $\nexists R$ | and / or
 $E \rightarrow E \cdot \text{and } E$, $\nexists R$ | and / or
 $E \rightarrow E \cdot \text{or } E$, $\nexists R$ | and / or



I_8

$E \rightarrow (E \cdot)$, $\nexists R$ | and / or
 $E \rightarrow E \cdot \text{and } E$, $\nexists R$ | and / or
 $E \rightarrow E \cdot \text{or } E$, $\nexists R$ | and / or



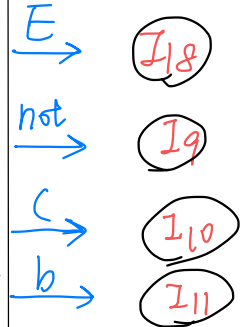
I_9

$E \rightarrow \text{not } \cdot E$, $>$ | and / or
 $E \rightarrow \cdot E \text{ and } E$, $>$ | and / or
 $E \rightarrow \cdot E \text{ or } E$, $>$ | and / or
 $E \rightarrow \cdot \text{not } E$, $>$ | and / or
 $E \rightarrow \cdot (E)$, $>$ | and / or
 $E \rightarrow \cdot b$, $>$ | and / or



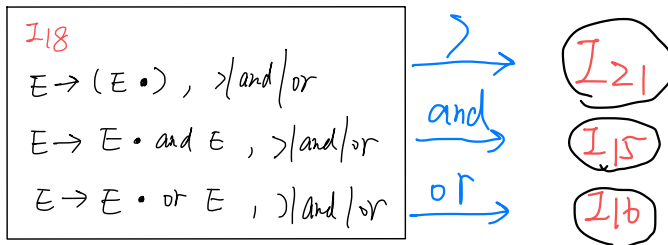
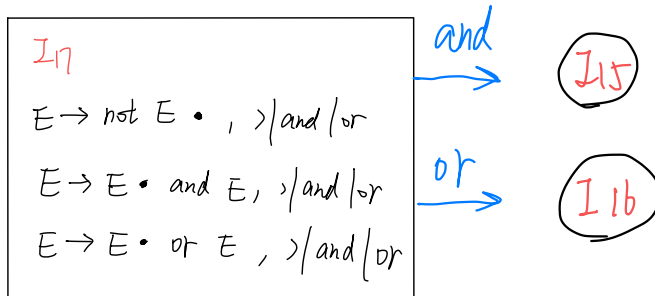
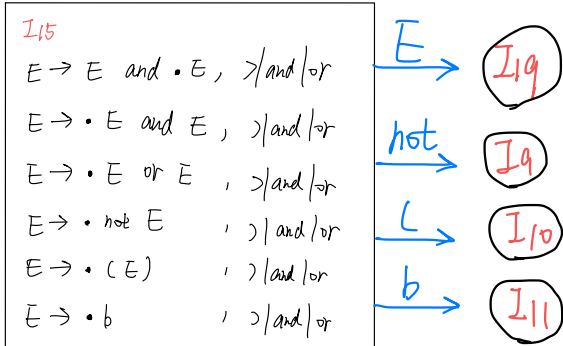
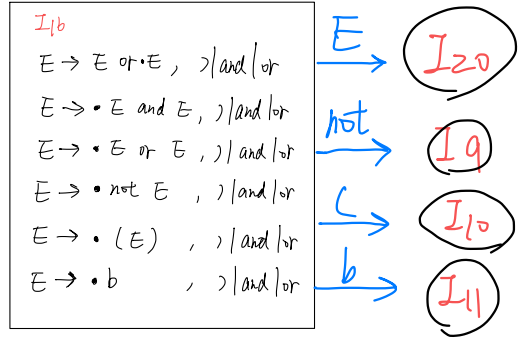
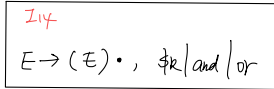
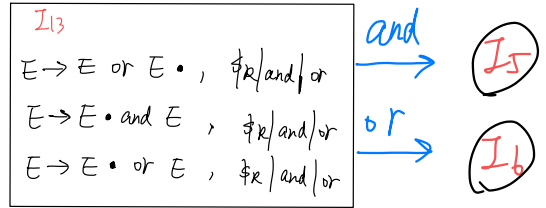
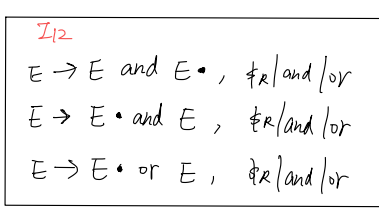
I_{10}

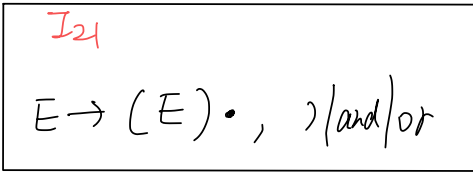
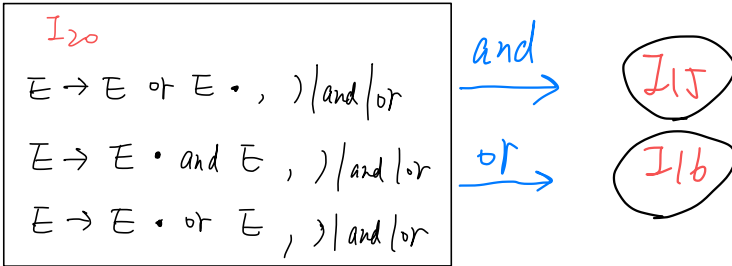
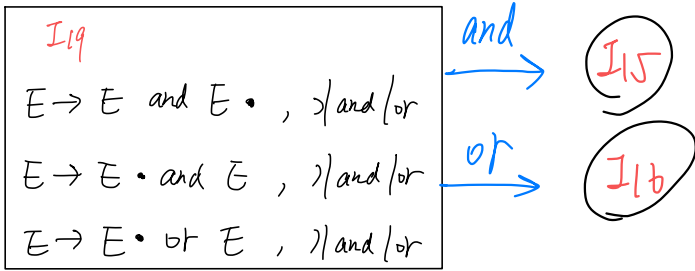
$E \rightarrow (\cdot E)$, $>$ | and / or
 $E \rightarrow \cdot E \text{ and } E$, $>$ | and / or
 $E \rightarrow \cdot E \text{ or } E$, $>$ | and / or
 $E \rightarrow \cdot \text{not } E$, $>$ | and / or
 $E \rightarrow \cdot (E)$, $>$ | and / or
 $E \rightarrow \cdot b$, $>$ | and / or



I_{11}

$E \rightarrow b \cdot$, $>$ | and / or





③ 构建 LR(1) 分析表 .

(见下页)

States	Action							Goto
	and	or	not	()	b	fr	E
0			s_2	s_3		s_4		1
1	s_5	s_6					acc	
2			s_2	s_3		s_4		7
3			s_9	s_{10}		s_{11}		8
4	r_5	r_5					r_5	
5			s_2	s_3		s_4		12
6			s_2	s_3		s_4		13
7	s_5 / r_3	s_6 / r_3					r_3	
8	s_{15}	s_{16}			s_{14}			
9			s_9	s_{10}		s_{11}		17
10			s_9	s_{10}		s_{11}		18
11	r_5	r_5			r_5			
12	s_5 / r_1	s_6 / r_1					r_1	
13	s_5 / r_2	s_6 / r_2					r_2	

14	r_4	r_4				r_4	
15			S_9	S_{10}	S_{11}		19
16			S_9	S_{10}	S_{11}		20
17	$S_{15}/\textcircled{r_3}$	$S_{16}/\textcircled{r_3}$			r_3		
18	S_{15}	S_{16}			S_{21}		
19	$S_{15}/\textcircled{r_1}$	$S_{16}/\textcircled{r_1}$			r_1		
20	$\textcircled{S_{15}}/r_2$	$S_{16}/\textcircled{r_2}$			r_2		
21	r_4	r_4			r_4		

Additional conditions:

① 优先级 not > and.

and > or

② and、or、not 都左结合的

根据附加条件解决冲突，红圈圈出者为保留项。

附加条件可自己设定，只要能解决冲突项即可。