

## 编译原理

## 第七章作业

$$1. (1) \quad C_A = 96 + 1 = 97$$

$$C_B = (20 + 1) \times 22 + 1 = 463$$

$$(2) \quad 100 \quad (*, \quad j, \quad 20, \quad T_1)$$

$$101 \quad (+, \quad m, \quad T_1, \quad T_1)$$

$$102 \quad (*, \quad T_1, \quad 22, \quad T_2)$$

$$103 \quad (+, \quad n, \quad T_2, \quad T_2)$$

$$104 \quad (-, \quad b, \quad 463, \quad T_3)$$

$$105 \quad (= [ ], \quad T_3 [ T_2 ], \quad -, \quad T_4)$$

$$106 \quad (*, \quad i, \quad 96, \quad T_5)$$

$$107 \quad (+, \quad T_4, \quad T_5, \quad T_5)$$

$$108 \quad (-, \quad a, \quad 97, \quad T_6)$$

$$109 \quad (*, \quad u, \quad v, \quad T_7)$$

$$110 \quad ([ ] =, \quad T_7, \quad -, \quad T_6 [ T_5 ])$$

$$2. (1) \quad C_A = (18 + 1) \times 96 + 1 = 1825$$

$$C_B = 22 + 1 = 23$$

$$(2) \quad 100 \quad (*, \quad i, \quad 22, \quad T_1)$$

$$101 \quad (+, \quad j, \quad T_1, \quad T_1)$$

$$102 \quad (-, \quad b, \quad 23, \quad T_2)$$

$$103 \quad (= [ ], \quad T_2 [ T_1 ], \quad -, \quad T_3)$$



104 ( +, m, n,  $T_4$  )

105 ( \*,  $T_3$ , 18,  $T_5$  )

106 ( +,  $T_4$ ,  $T_5$ ,  $T_5$  )

107 ( \*,  $T_5$ , 96,  $T_6$  )

108 ( +, u,  $T_6$ ,  $T_6$  )

109 ( -, a, 1825,  $T_7$  )

110 ( [ ] =, v, - ,  $T_7$  [  $T_6$  ] )

3. (1) 100 (  $j \neq$ , C, D,  $0 \rightarrow 102$  )

101 (  $j$ , - , - , 0 )

102 (  $j =$ , E, F,  $0 \rightarrow 104$  )

103 (  $\bar{j}$ , - , - ,  $0 \rightarrow 101$  )

104 (  $j <$ , G, H,  $0 \rightarrow 106$  )

105 (  $j$ , - , - ,  $0 \rightarrow 100$  )

106 (  $j >$ , I, J,  $0 \rightarrow 108$  )

107 (  $\bar{j}$ , - , - ,  $0 \rightarrow 104$  )

108 (  $j \leq$ , A, B,  $T_1$  )

109 ( not,  $T_1$ , - ,  $T_2$  )

110 (  $:=$ ,  $T_2$ , - , K )

111 (  $j$ , - , - , 104 )

112 (  $j$ , - , - , 100 )



(2)  $BP(100, 102)$

$E3. \text{false list} = \text{MERG}(101, 103) = 103$

$BP(106, 108)$

$S2. \text{next list} = \text{MERG}(107, 0) = 107$

$BP(104, 106)$

$BP(107, 104)$

$BP(102, 104)$

$BP(105, 100)$

(3)  $S4. \text{next list} = E3. \text{false list} = 103 \rightarrow 101$

4 (1)  $100 (j \neq, C, D, 0 \rightarrow 104)$

$101 (j, -, -, 0 \rightarrow 102)$

$102 (j =, E, F, 0 \rightarrow 100 \rightarrow 104)$

$103 (j, -, -, 0 \rightarrow 110)$

$104 (j <, G, H, 0 \rightarrow 106)$

$105 (j, -, -, 0)$

$106 (*, I, J, T_1)$

$107 (:=, T_1, -, K)$

$108 (j, -, -, 104)$

$109 (j, -, -, 0 \rightarrow 105)$

$110 (\leq, A, B, T_2)$



111 (not,  $T_2$ , -,  $T_3$ )

112 ( $:=$ ,  $T_3$ , -,  $L$ )

(2) BP(101, 102)

E3. truelist = MERG(100, 102) = 102

BP(104, 106)

BP(0, 104)

BP(102, 104)

BP(103, 110)

S4. nextlist = MERG(105, 109, 0)

(3) S4. nextlist = 109  $\rightarrow$  105