

5.4-4

解: (1) $S \rightarrow \text{if}(C) S_1 \text{ else } S_2$

$L_1 = \text{new}(L)$

$C.\text{false} = L_1$

$S_1.\text{next} = S.\text{next}$

$S.\text{code} = C.\text{code} \parallel S_1.\text{code} \parallel \text{Label} \parallel L_1 \parallel S_2.\text{code}$

(2) $S \rightarrow \text{do } S_1 \text{ while } (C)$

$L_1 = \text{new}(L)$

$C.\text{true} = L_1$

$S.\text{code} = \text{Label} \parallel L_1 \parallel S_1.\text{code} \parallel C.\text{code}$

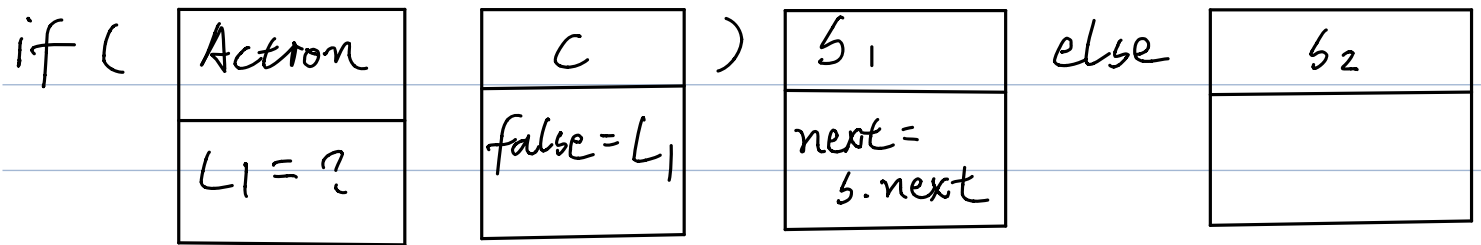
(3) $S \rightarrow \{'\{ ' L '\}' ; \quad L \rightarrow L S \mid \epsilon$

$L.\text{code} = L.\text{code} \parallel S.\text{code}$

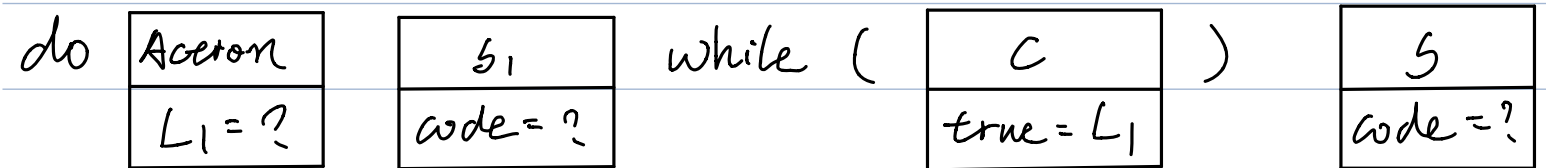
$S.\text{code} = L.\text{code}$

5.5.4

解: (1) $S \rightarrow$ if ($\{ \text{new } L_1; C \text{ false} = L_1 \}$
 C) $\{ S_1.\text{next} = S.\text{next} \}$
 S_1 else
 S_2 $\{ S.\text{code} = C.\text{code} || S_1.\text{code} || \text{label} || L_1 || S_2.\text{code} \}$



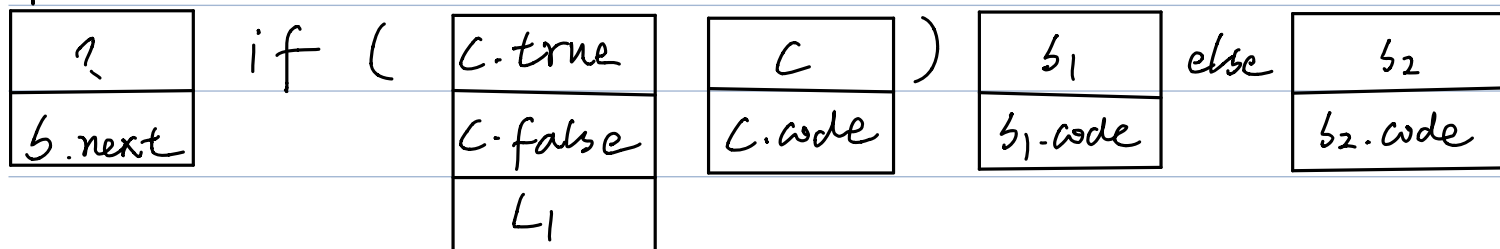
(2) $S \rightarrow$ do $\{ \text{new } L_1 \}$
 S_1 while ($\{ C.\text{true} = L_1 \}$
 C) $\{ S.\text{code} = \text{label} || L_1 || S_1.\text{code} || C.\text{code} \}$



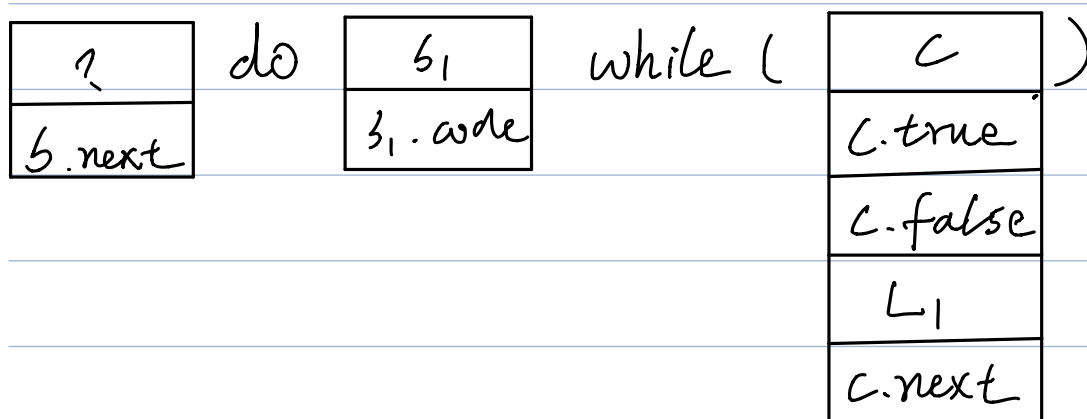
(3)

5.5.5

解: (1) $S \rightarrow \text{if}(C) S_1 \text{ else } S_2$



(2) $S \rightarrow \text{do } S_1 \text{ while } (C)$



(3)