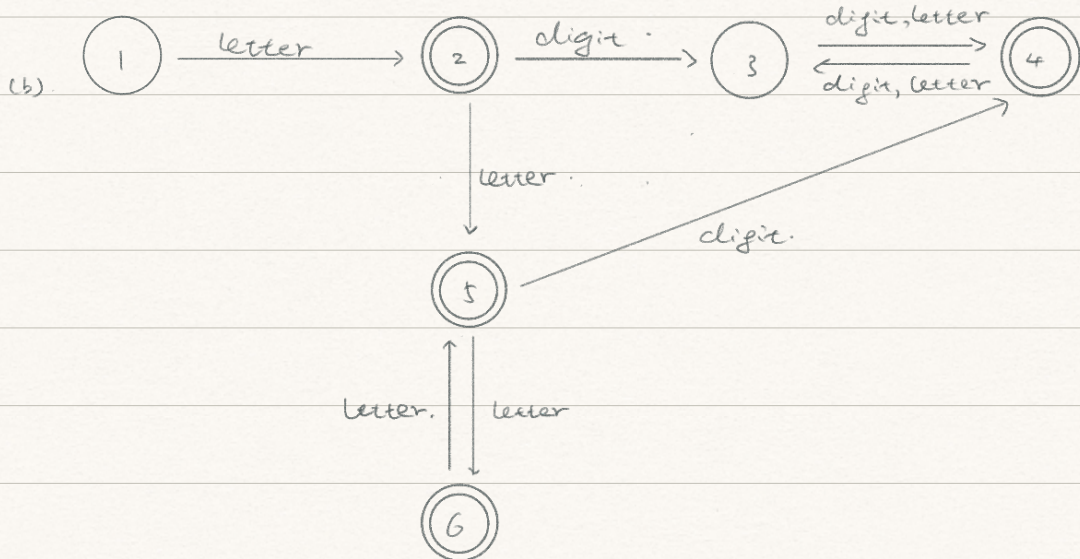
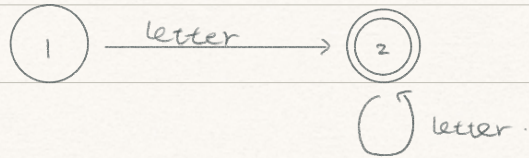
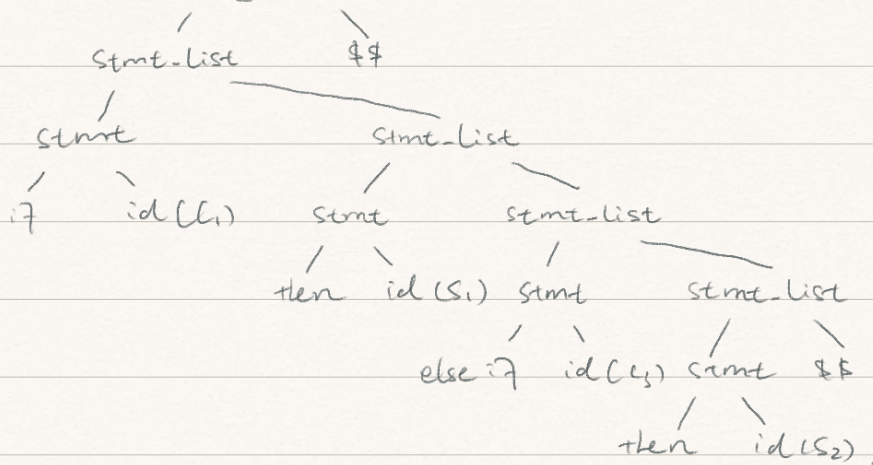


Q1 comment  $\rightarrow \# \{a, non-a\}^*$  | " $\{a, non-a\}^*$ " | " $\{a, non-a\}^*$ "

Q 2 (a)



Q3 (a). program



(b) N P S B U C D

FIRST(N)  $\{ \text{if } C_i, S_i \} \{ \text{if } C_i, S_i \} \{ \text{if } C_i, S_i \} \{ \text{if } C_i \}$  C<sub>i</sub> S<sub>i</sub>

FOLLOW(N)  $\{ \$ \}$  S<sub>i</sub> S<sub>i</sub> S<sub>i</sub> C<sub>i</sub> S<sub>i</sub>

PREDICT(N)  $P \rightarrow S \$$

$S \rightarrow B$

$S \rightarrow U$

$B \rightarrow \text{if } C \text{ then } B \text{ else } B$

$B \rightarrow D$

$D \rightarrow S_i$

$U \rightarrow \text{if } C \text{ then } B \text{ else } B.$

$U \rightarrow \text{if } C \text{ then } B \text{ else } U$

(c)  $\begin{cases} S \rightarrow U \\ S \rightarrow B \end{cases}$

$\begin{cases} U \rightarrow \text{if } C \text{ then } B \text{ else } B. \\ U \rightarrow \text{if } C \text{ then } B \text{ else } U \end{cases}$

(d)

(e) a token belongs to the predictive set of more than one production with same LHS

Q4. File is attached.