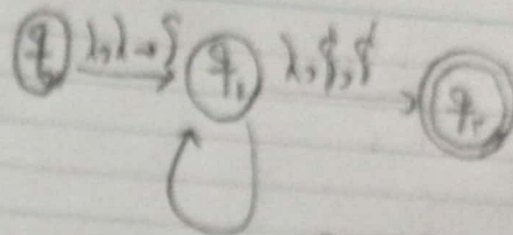


الف) $S \rightarrow U | b | TccU$

$T \rightarrow \lambda | SaS$

$U \rightarrow a | b | UUU$

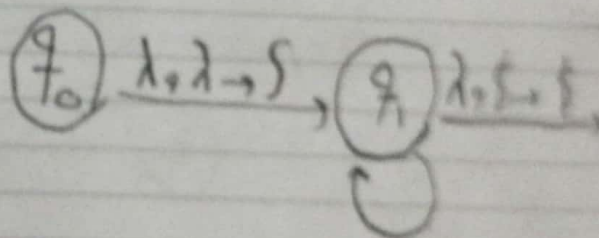


$a, a \rightarrow \lambda$
 $b, b \rightarrow \lambda$
 $\lambda, S \rightarrow b$
 $\lambda, U \rightarrow a$
 $\lambda, U \rightarrow b$
 $\lambda, T \rightarrow SaS$

ب)

$S \rightarrow AA | a$

$A \rightarrow SA | b$



$a, a \rightarrow \lambda$
 $b, b \rightarrow \lambda$
 $\lambda, A \rightarrow b$
 $\lambda, A \rightarrow SA$
 $\lambda, S \rightarrow a$
 $\lambda, S \rightarrow AA$