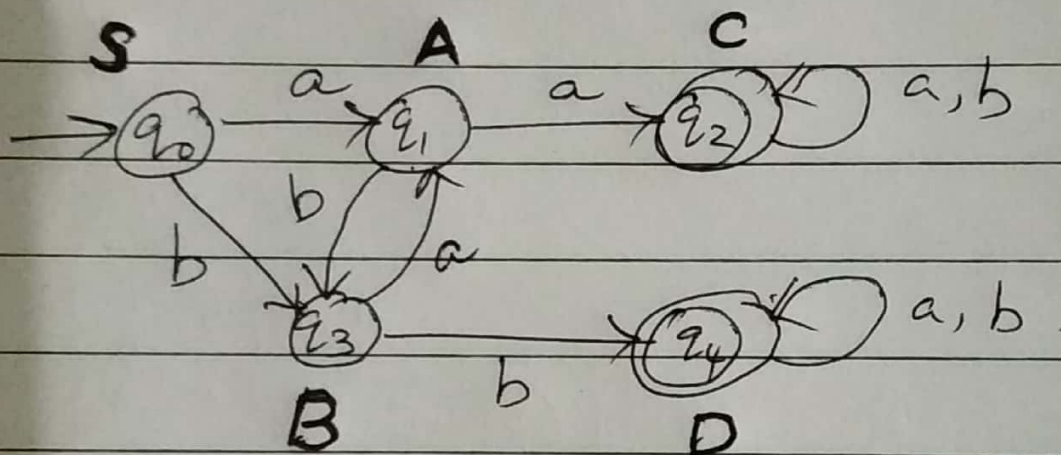


$$S \rightarrow aA \mid bB$$

$$A \rightarrow aC \mid bB$$

$$B \rightarrow bD \mid aA$$

$$C \rightarrow aC \mid bB \mid a \mid b \mid \epsilon$$

$$D \rightarrow aD \mid bD \mid a \mid b \mid \epsilon$$


name each state with nonterminals.

starting with ~~q0, (q0)~~ q_0 ,

~~$$S \rightarrow aA$$~~

transition i/p

transition i/p
state symbol.

$$S \rightarrow aA \mid bB$$

transition i/p state symbol.

from q_1 (i state symbol A)

$A \rightarrow bB / aC$

||| ^{ly} from $q_3 \rightarrow \underline{\underline{B}}$

$B \rightarrow bD / aA$

from c

$c \rightarrow ac / bc / a / b / \epsilon$

↑
loop to the
same state

can be
accepted

~~a/b~~ is options a/b is not
compulsory

$c \rightarrow ac / bc / \epsilon$ is enough.