PES UNIVERSITY ONLINE

Automata Formal Languages & Logic

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Automata Formal Languages & Logic

Unit 3

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Every Production in GNF looks like

A-> a α

a∈ T

a∈V*

Or

A -> λ

Example 1:

S -> aSb | bSb | SS | λ

Solution :

The grammar in GNF is

S -> aSB | bSA | aSBA | bSAS | λ

A -> a

B -> b

Example 2:

S -> XY | Xn | p

X -> mX | m

Y -> Wn| o

Solution :

The grammar in GNF is

S -> mXY | mY | mXN | mN | p

X -> mXN | mN | o

N -> n

Example 1:

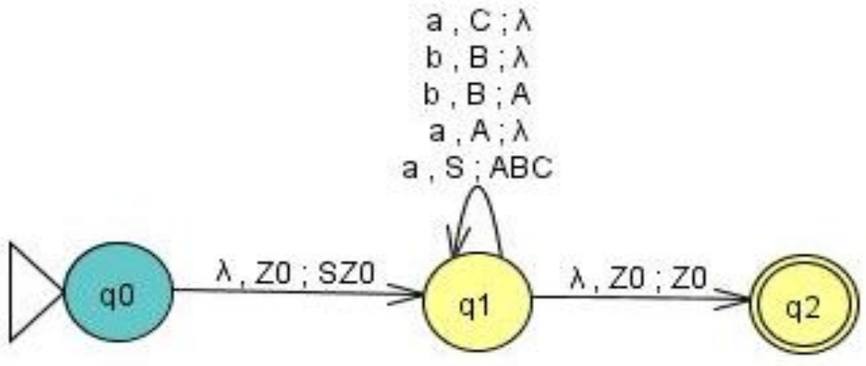
S -> aABC

A -> aB | a

B -> bA | b

C -> a

Solution :



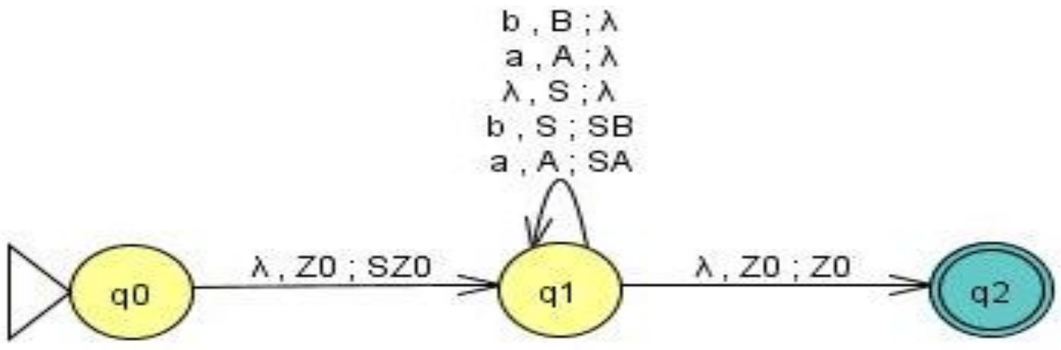
Example 2:

S -> aSA | bSB | λ

A -> a

B -> b

Solution :



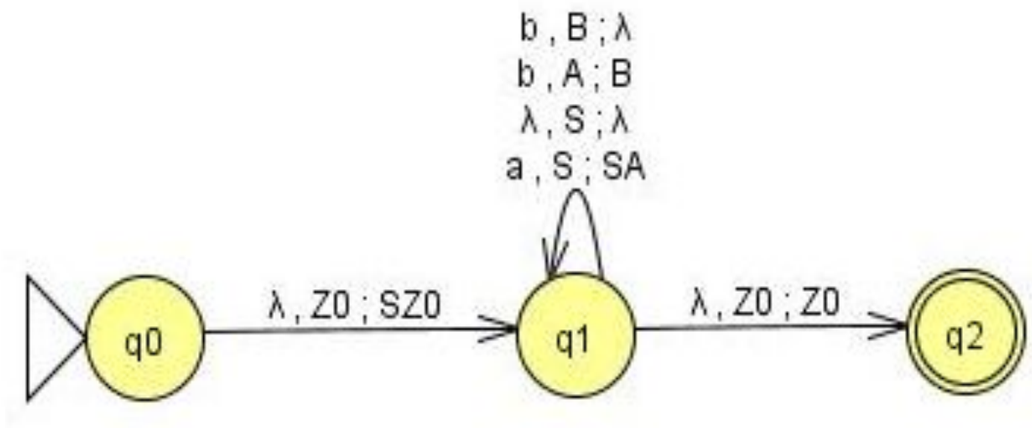
Example 3:

S -> aSA | λ)

A -> bB

B -> b

Solution :



THANK YOU

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