

132459

Gichuhi Natasha

ICS 3 A

The following grammar generates the language of Regular Expression (RE) $0^*1(0+1)^*$. Generate any 3 strings [of your choice] of lengths 2, 4 and 5 from the RE. Show how the selected strings can be derived from the grammar. Draw the leftmost and rightmost parse trees[if possible]

1. $S \rightarrow A1B$

2. $A \rightarrow 0A \mid \epsilon$

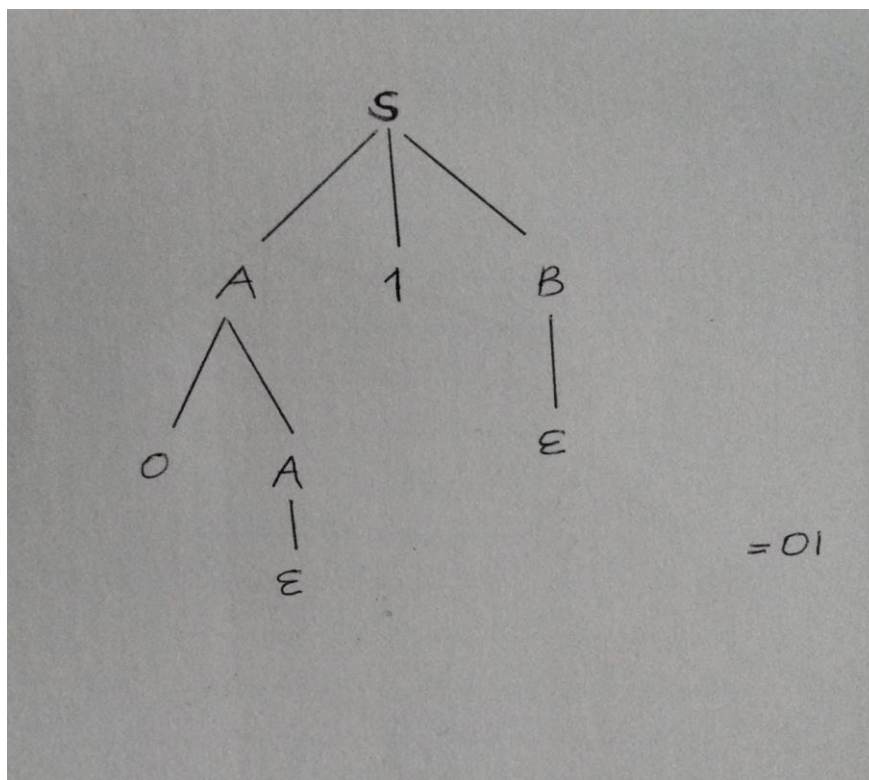
3. $B \rightarrow 0B \mid 1B \mid \epsilon$

$S \rightarrow A1B$

$A \rightarrow 0A$

$B \rightarrow \epsilon$

01



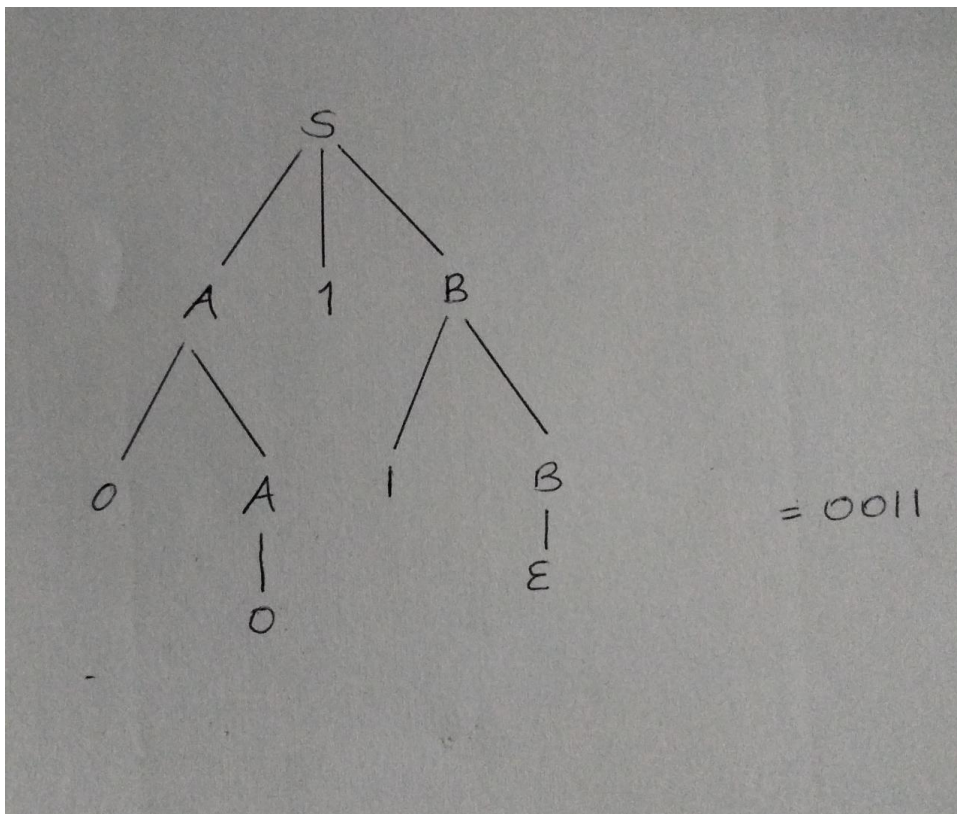
$S \rightarrow A1B$

$A \rightarrow 0A$

$B \rightarrow 1B$

$B \rightarrow \epsilon$

0011



$S \rightarrow A1B$

$A \rightarrow OA$

$B \rightarrow 1B$

00111

