

Subhradip Debnath  
Sec : A  
Roll : 19  
CSE Department  
Institute of Engineering and Management, Kolkata  
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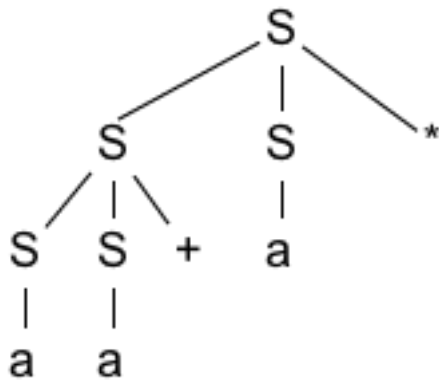
Consider the Context Free Grammar

$S \rightarrow SS+ \mid SS^* \mid a$

- Show how the string  $aa+a^*$  can be generated by this grammar .
- Construct a parse tree for this string.
- What language is generated by this grammar .

Answer :

1.  $S \rightarrow SS^* \rightarrow SS+S^* \rightarrow aS+S^* \rightarrow aa+S^* \rightarrow aa+a^*$



2.

3.  $L = \{\text{Postfix expression consisting of digits, plus and multiple signs}\}$