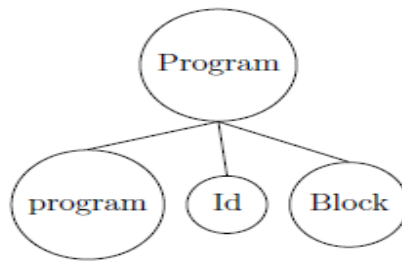
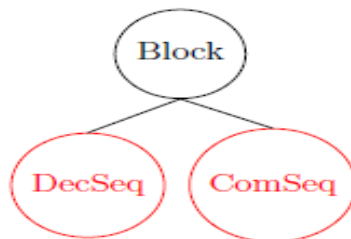


## Language 2: Abstract Syntax Tree

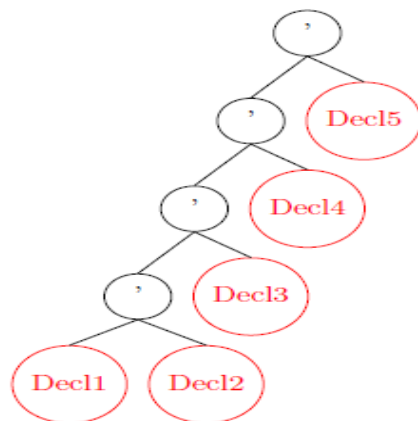
Program  $\leftarrow$  Program(program, id, Block)



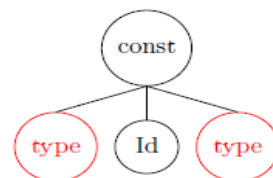
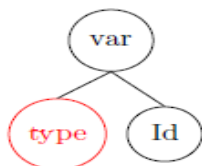
Block  $\leftarrow$  Block(Declseq, ComSeq)



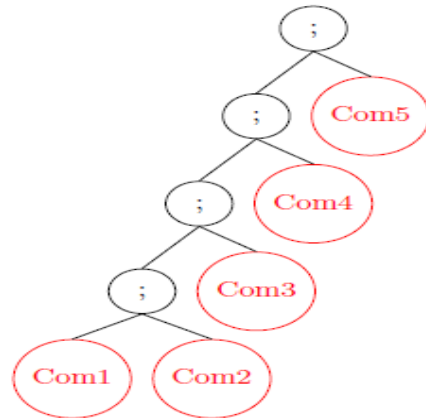
$\text{DeclSeq} \leftarrow \text{Decl}^+ \text{SB},$



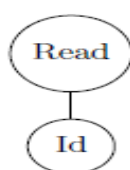
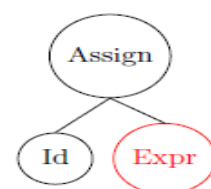
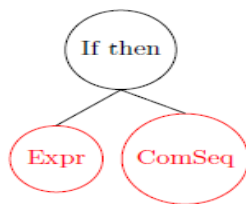
$\text{Decl} \leftarrow \text{var}(\text{type}, \text{id}) \mid \text{const}(\text{type}, \text{id}, \text{Expr})$



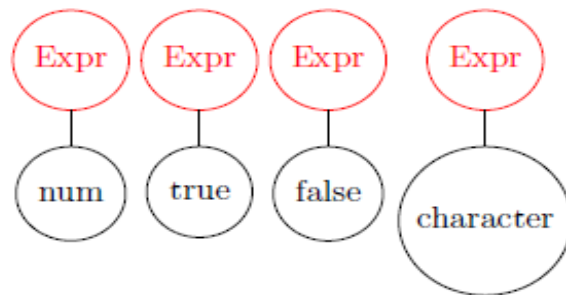
$\text{ComSeq} \leftarrow \text{Com}^+ \text{SB};$



$\text{Com} \leftarrow \text{IfThen}(\text{Expr}, \text{ComSeq}) \mid \text{Assign}(\text{id}, \text{Expr}) \mid \text{Write}(\text{Expr}) \mid \text{Read}(\text{id})$



**<expr> ::= num | true | false | character**



**<type> ::= int | bool | char**

