

Computer Science Language Processors

Rules

- The duration of the test is **60 minutes**
- Questions will not be answered during the test
- One cannot re-enter the classroom after leaving it
- The answers must be written using a pen (not a pencil)

1.- Given the grammar:

$$\begin{aligned} Z &::= bB \mid cN \mid j \\ B &::= NN' \mid Aj \\ N' &::= AA' \mid c \\ A' &::= c \mid l \\ N &::= x \\ A &::= h \mid z \end{aligned}$$

- Calculate the **FIRST** and **FOLLOW** sets.
- Using the algorithm, determine if it is an **LL(1)** grammar.
- Construct the analysis table for the **LL(1)** table-driven top-down predictive parsing.
- Show how the input string **bxhc** would be analyzed using the parsing table for the grammar.