

ToC Assignment 2

Consider the CFG $S \rightarrow CB|DA$, $B \rightarrow b|DS|EB$, $E \rightarrow CB$, $A \rightarrow a|CS|FA$, $F \rightarrow DA$, $D \rightarrow b$, $C \rightarrow a$

Apply CYK algorithm and thus find whether the given strings are in the language of the CFG or not.

- If you roll number ends in 0 or 3, then your input strings are
(1) abbaabba (2) abbbbaabb
- If you roll number ends in 1 or 4 then your input strings are
(1) bbabaaba (2) bbabaabb
- If you roll number ends in 2 or 5, then your input strings are
(1) aabbbabb (2) aabbbbaab
- If you roll number ends in 6 or 8, then your input strings are
(1) ababbabb (2) abababab
- If you roll number ends in 7 or 9, then your input strings are
(1) aababaab (2) bababaab

Clearly draw the table (as explained in the class), apply the CYK algorithm (table-filling).

Submit only one page with your answer.

Deadline: 4th April (Sat) 5pm.

Other guidelines are same as that of Assignment 1.