

German University in Cairo
Department of Computer Science
Assoc. Prof. Haythem O. Ismail

Compilers, Spring Term 2019
Assignment 2

Due on April 24, by 16:00

Name:

Group:

ID:

Write an SDD for a CFG that generates the language $\mathbf{a^*b^*}$ such that the start variable has an attribute *check* whose value is 1 if the generated string is of the form $\mathbf{a^{2^n}b^{3^n}}$, for some $n \geq 0$, and is 0 otherwise.

In constructing the SDD, make sure that the only operations performed on attributes are assignments, additions, subtractions, multiplications, and equality checks; an equality check is an expression of the form $x == y$ whose value is 1 if x is equal to y and is 0 otherwise.