

# Assignment 16

## Automata & Theory of Computation

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1. Determine whether or not the following language is context-free and explain why:

$$L = \{a^n b^n c^j : n \geq j\}.$$

우려  $uvxyz$   
 $\begin{cases} |vxy| \leq m \\ |vy| \leq 1 \end{cases}$   
 $wxyz \in L$

$a^m b^m c^m$

① ~~반복~~ ~~부등~~ ~~이~~  $a$ 나  $b$ 나  $c$ 의 ~~중~~  $\rightarrow$  out

②  $a$ 에  $v$ 가,  $b$ 에  $y$ 가 위치한다면?

$$k = |v| = |y|$$

$$\Rightarrow a^{m+k} b^{m+k} c^m \rightarrow \text{오류}$$