Review 22

Automata & Theory of Computation

Student ID: **Name:**

1. Answer the following questions.

(1) Construct a context-free grammar for the language accepted by the following npda.

$$\delta(q_0, a, z) = \{(q_0, Az)\},$$
$$\delta(q_0, a, A) = \{(q_0, A)\},$$
$$\delta(q_0, b, A) = \{(q_1, \lambda)\},$$
$$\delta(q_1, \lambda, z) = \{(q_2, \lambda)\}.$$

(2) Show the string $w = aab$ is accepted by pda in (1) using derivation with (1)'s answer.

$(q_0 z q_2) \Rightarrow$ ☐

$\Rightarrow$ ☐

$\Rightarrow$ ☐

$\Rightarrow$ ☐

$\Rightarrow$ ☐