(a) Find δ*(1, ab). [6 Points]

$\Lambda(\{1\}) = \{1, 2\}$, $\delta(1, a) = \phi$ $\delta(2, a) = \{4\}$

$\{3, 5\}$

$\Lambda(\{4\}) = \{1, 2, 4\}$ $\delta(1, b) = \{3\}$ $\delta(2, b) = \{5\}$

$\delta(4, a) = \phi$ $\Lambda(\{3, 5\}) = \{3, 5\}$

(b) Find Λ({4}). [6 Points]

$\{1, 2, 4\}$

(c) Find an NFA that accepts the same language as the NFA-Λ. [10 Points]

|   | a | b |
|---|---|---|
| 1 | $\{1, 2, 4\}$ | $\{3, 5\}$ |
| 2 | $\{1, 2, 4\}$ | $\{3, 5\}$ |
| 3 | $\phi$ | $\phi$ |
| 4 | $\{1, 2, 3, 4, 5\}$ | $\{3, 5\}$ |
| 5 | $\phi$ | $\phi$ |