

$$\{\}$$

(i)

$$\{o_1\{\} : \text{INS}(x, 0)\}$$

(ii)

$$\begin{aligned} &\{o_1\{\} : \text{INS}(x, 0), \\ &o_4\{o_1\} : \text{INS}(b, 1)\} \end{aligned}$$

(iii)

$$\begin{aligned} &\{o_1\{\} : \text{INS}(x, 0), \\ &o_2\{o_1\} : \text{DEL}(x, 0), \quad o_4\{o_1\} : \text{INS}(b, 1) \\ &o_2\{o_1, o_4\} : \text{DEL}(x, 0), \quad o_4\{o_1, o_2\} : \text{INS}(b, 0)\} \end{aligned}$$

(iv)

$$\begin{aligned} &\{o_1\{\} : \text{INS}(x, 0), \\ &o_2\{o_1\} : \text{DEL}(x, 0), \quad o_3\{o_1\} : \text{INS}(a, 0), \quad o_4\{o_1\} : \text{INS}(b, 1) \\ &o_3\{o_1, o_2\} : \text{INS}(a, 0), \quad o_4\{o_1, o_2\} : \text{INS}(b, 0) \\ &o_2\{o_1, o_3\} : \text{DEL}(x, 1), \quad o_2\{o_1, o_4\} : \text{DEL}(x, 0) \\ &o_3\{o_1, o_2, o_4\} : \text{INS}(a, 1), \quad o_4\{o_1, o_2, o_3\} : \text{INS}(b, 0)\} \end{aligned}$$

(v)