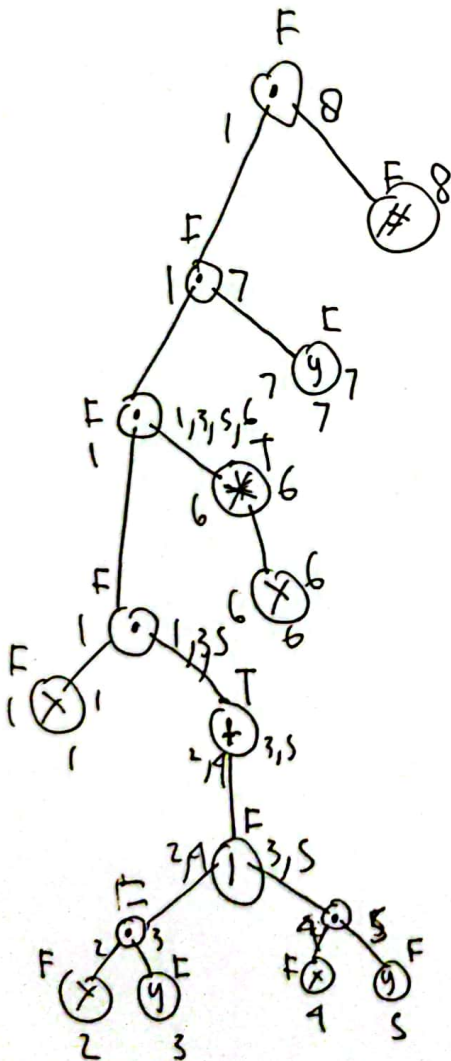
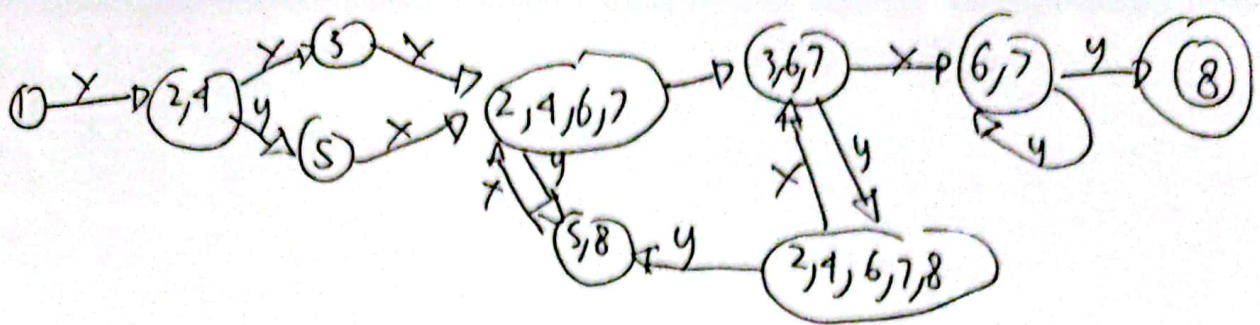


Following 8 :

table	x	y
1	2, 4	—
2, 4	3	2, 5
3	—	2, 4, 6, 7
2, 5	2, 4, 6, 7	—
2, 4, 6, 7	3, 6, 7	2, 5, 8
2, 4, 5, 6, 7, 8	2, 4, 6, 7	2, 4, 6, 7, 8
3, 6, 7	2, 4, 6, 7	—
5, 8	—	—
6, 7	6, 7	5, 8
2, 4, 6, 7, 8	3, 6, 7	—
8	—	—

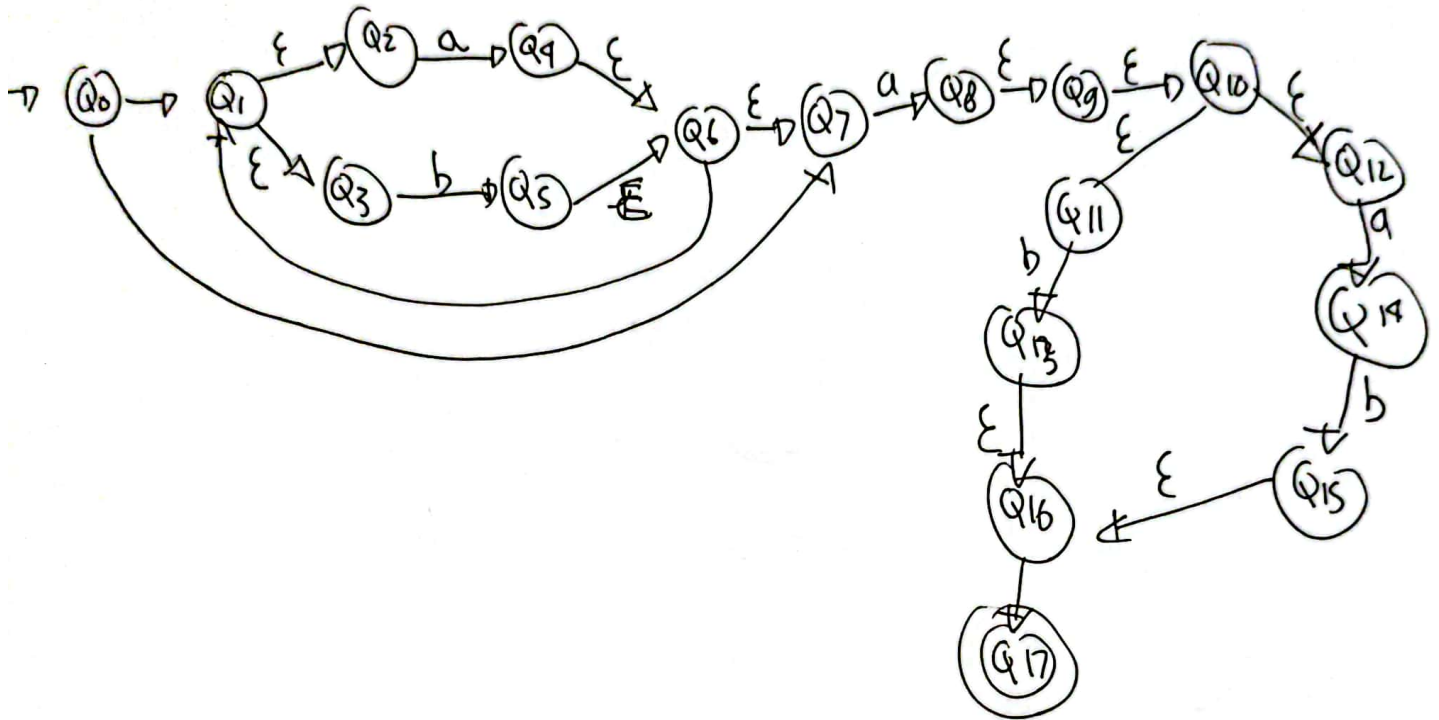


C.



2. $(a|b)^* a (b|ab)^+$

(a). Thompson Construction



$$\begin{aligned} \text{E close}(Q_0) &= 0, 1, 2, 3, 7 \\ \text{E close}(Q_1) &= 1, 2, 3 \\ \text{E close}(Q_2) &= 2 \\ \text{E close}(Q_3) &= 3 \\ \text{E close}(Q_4) &= 4, 6, 7 \\ \text{E close}(Q_5) &= 5, 6, 7 \\ \text{E close}(Q_6) &= 6, 7 \\ \text{E close}(Q_7) &= 7 \end{aligned}$$
$$\begin{aligned} \varepsilon_{\text{clox}}(q_8) &= 8, 9, 10, 11, 12 \\ \varepsilon_{\text{clox}}(q_9) &= 9, 10, 11, 12 \\ \varepsilon_{\text{clox}}(q_{10}) &= 10, 11, 12 \\ \varepsilon_{\text{clox}}(q_{11}) &= 11 \\ \varepsilon_{\text{clox}}(q_{12}) &= 12 \\ \varepsilon_{\text{clox}}(q_{13}) &= 13, 14, 17 \\ \varepsilon_{\text{clox}}(q_{19}) &= 19 \end{aligned}$$
$$\begin{aligned} \text{clock}(q_{15}) &= 15, 16, 17, 18, 19 \\ \text{clock}(q_{16}) &= 16, 17, 18, 19, 20 \\ \text{clock}(q_{17}) &= 17 \end{aligned}$$

State	a	b
E2	9,0	5
E4,0	0,14	13
ES	—	5
E0,14	14	13,15
E13	—	—
E14	—	15
E13,15	14	13
E15	14	13

