

Date : _____

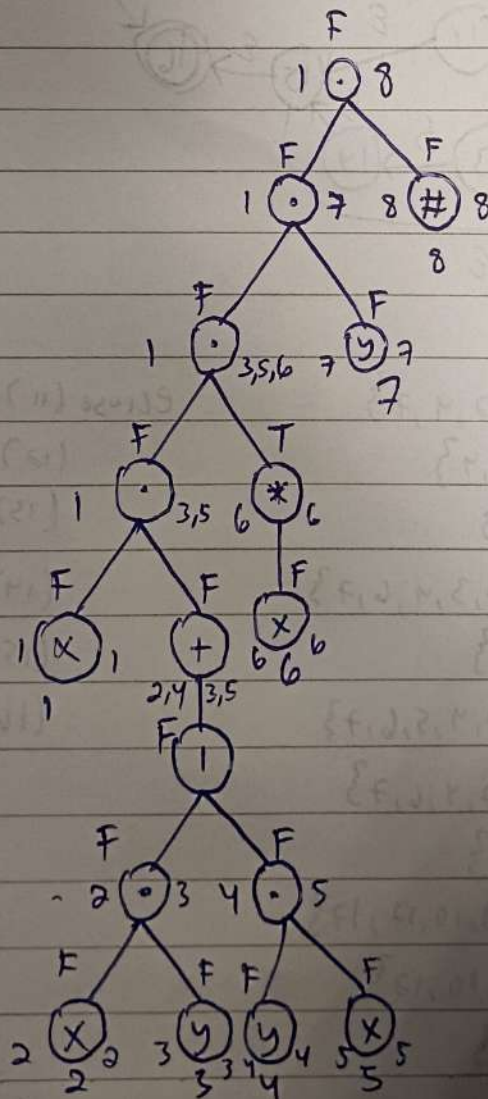
1 a $x(xy+yx)^+ x^* y$

1 2 3 4 5 6 7 8

$$(2) = 3$$
$$(4) = 5$$
$$(6) = 6, 7$$

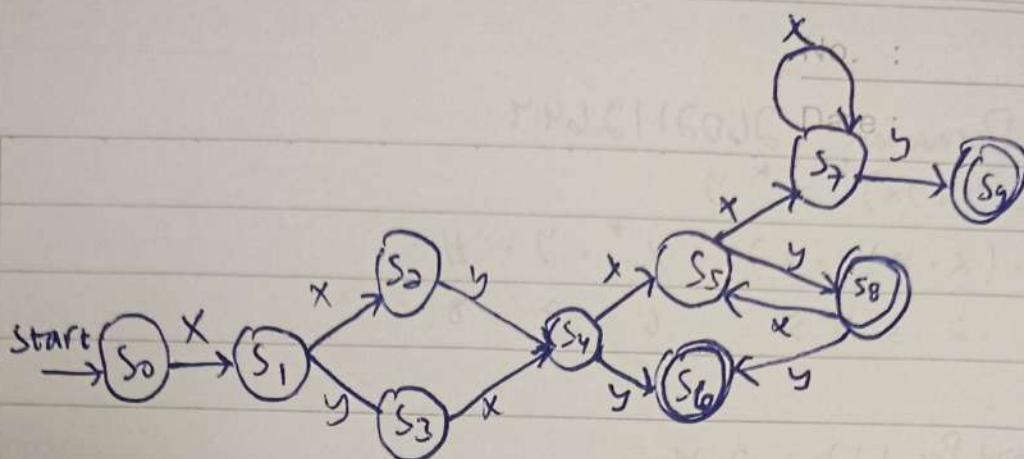
(77) = 8

b

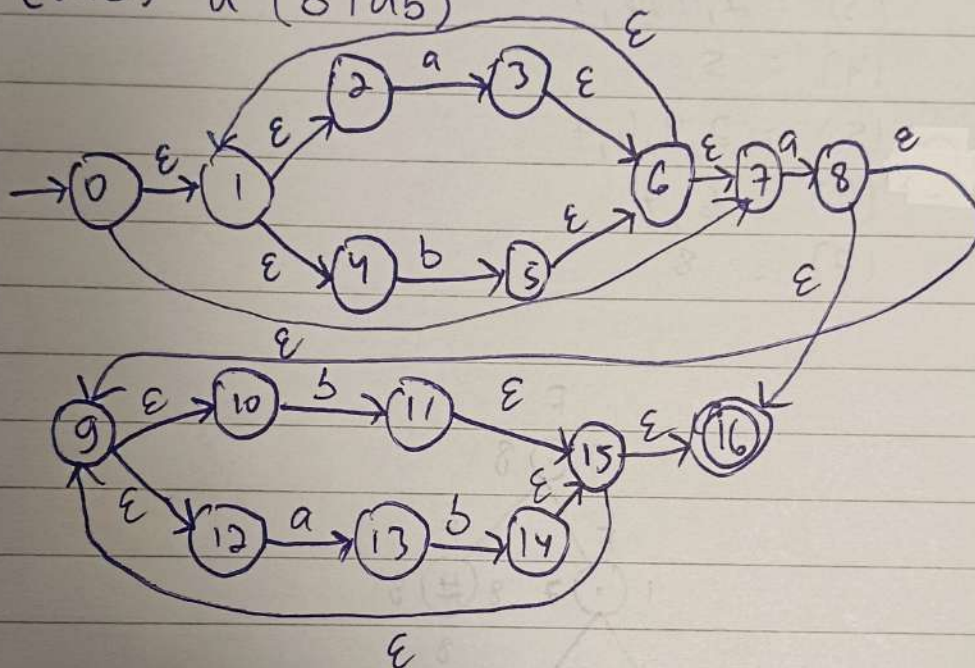


State	x	y
→ 1 (s ₀)	2, 4 (s ₁)	-
2, 4	3 (s ₂)	5 (s ₃)
3	-	2, 4, 6, 7 (s ₄)
5	2, 4, 6, 7	-
2, 4, 6, 7	3, 6, 7 (s ₅)	5, 8 (s ₆)
3, 6, 7	6, 7 (s ₇)	2, 4, 6, 7, 8 (s ₈)
* 5, 8	2, 4, 6, 7	-
6, 7	6, 7	8 (s ₉)
2, 4, 6, 7, 8	3, 6, 7	5, 8
* 8	-	-

c



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



b $EClose(0) = \{0, 1, 2, 4, 7\}$

$(1) = \{1, 2, 4\}$

$(2) = \{2\}$

$(3) = \{1, 2, 3, 4, 6, 7\}$

$(4) = \{4\}$

$(5) = \{1, 2, 4, 5, 6, 7\}$

$(6) = \{1, 2, 4, 6, 7\}$

$(7) = \{7\}$

$(8) = \{8, 9, 10, 12, 17\}$

$(9) = \{9, 10, 12\}$

$(10) = \{10\}$

$EClose(11) = \{9, 10, 11, 12, 15, 16\}$

$(12) = \{12\}$

$(13) = \{13\}$

$(14) = \{9, 10, 12, 14, 15, 16\}$

$(15) = \{9, 10, 12, 15, 16\}$

$(16) = \{16\}$

No. :

Date :

$$\text{eclose}(0) = \{0, 1, 2, 4, 7\} = S_0$$

$$(\delta(S_0, a)) = 3, 8 = \{1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 16\} = S_1$$

$$(\delta(S_0, b)) = 5 = \{1, 2, 4, 5, 6, 7\} = S_2$$

$$(\delta(S_1, a)) = 3, 8, 13 = \{1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 16\} = S_3$$

$$(\delta(S_1, b)) = 5, 11 = \{1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 15, 16\} = S_4$$

$$(\delta(S_2, a)) = 3, 8 = S_1$$

$$(\delta(S_2, b)) = 5 = S_2$$

$$(\delta(S_3, a)) = 3, 8, 13 = S_3$$

$$(\delta(S_3, b)) = 5, 11, 14 = \{1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 16\} = S_5$$

$$(\delta(S_4, a)) = 3, 8, 13 = S_3$$

$$(\delta(S_4, b)) = 5, 11 = S_4$$

$$(\delta(S_5, a)) = 3, 8, 13 = S_3$$

$$(\delta(S_5, b)) = 5, 11 = S_4$$

