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GSLC COMPTECH

① DIBERIKAN REGULER EXPRESSION (RE) BERIKUT INI :

$x\,(xy|yx)^{+}\,x^{*}\,y$

a. TENTUKANLAH FOLLOWPOS DALAM RE TERSEBUT

b. BUATLAH SYNTAX TREE (TUNJUKAN DENGAN FIRSTPOS, LASTPOS & NULLABLE)

c. BUATLAH TABEL DFA DAN GAMBARKAN HASIL DFA.

= a. $x \cdot (xy|yx)^{+} \cdot x^{*} \cdot y \cdot \#$

1 2 3 4 5 6 7 8

FOLLOW POS (1) = (2,4)

FOLLOW POS (2) = (3)

FOLLOW POS (3) = (2,4,6,7)

FOLLOW POS (4) = (5)

FOLLOW POS (5) = (2,4,6,7)

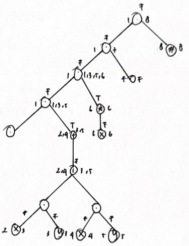
FOLLOW POS (6) = (6,7)

FOLLOW POS (7) = (8)

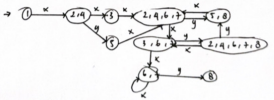
FOLLOW POS (8) = (-)

b.

STATE	x	y
→ 1	2,4	-
2,4	3	5
3	-	2,4,6,7
5	2,4,6,7	-
2,4,6,7	3,6,7	5,8
3,6,7	6,7	2,4,6,7,8
* 5,8	2,4,6,7	-
* 6,7	6,7	8
2,4,6,7,8	3,6,7	5,8
* 8	-	-



c.



② DIBERIKAN REGULER EXPRESSION (RE) BERIKUT :

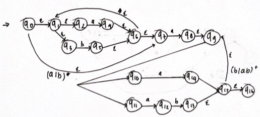
$(a|b)^{*}\,a\,(b|ab)^{+}$

a. BUATLAH TRANSIN CONSTRUCTION DARI RE TERSEBUT

b. BUATLAH TENTUK DFA DARI E-NFA YANG DIDAPATKAN DARI PENYELESAIAN PADA POIN A.

= a. $(a|b)^{*}\,a\,(b|a.b)^{+}$

1 2 3 4 5 6



b. ECLOSE (q_0) = (0,1,2,3,7)

ECLOSE (q_1) = (1,2,3)

ECLOSE (q_2) = (2)

ECLOSE (q_3) = (3)

ECLOSE (q_4) = (4,6,7,1,2,3)

ECLOSE (q_5) = (5,7,1,2,3)

ECLOSE (q_6) = (6,7,1,2,3)

ECLOSE (q_7) = (7)

ECLOSE (q_8) = (8,9,10,11,16)

ECLOSE (q_9) = (9,10,11)

ECLOSE (q_{10}) = (10)

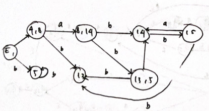
ECLOSE (q_{11}) = (11)

ECLOSE (q_{12}) = (12)

ECLOSE (q_{13}) = (13,15,16)

ECLOSE (q_{14}) = (14,15,16)

ECLOSE (q_{15}) = (15,16)

ECLOSE (q_{16}) = (16)

STATE	a	b
E_1	9,8	5
$E_{9,8}$	8,14	13
E_5	-	5
$E_{8,14}$	14	13,15
E_{13}	-	-
E_{14}	-	15
$E_{11,15}$	14	13
E_{15}	14	13