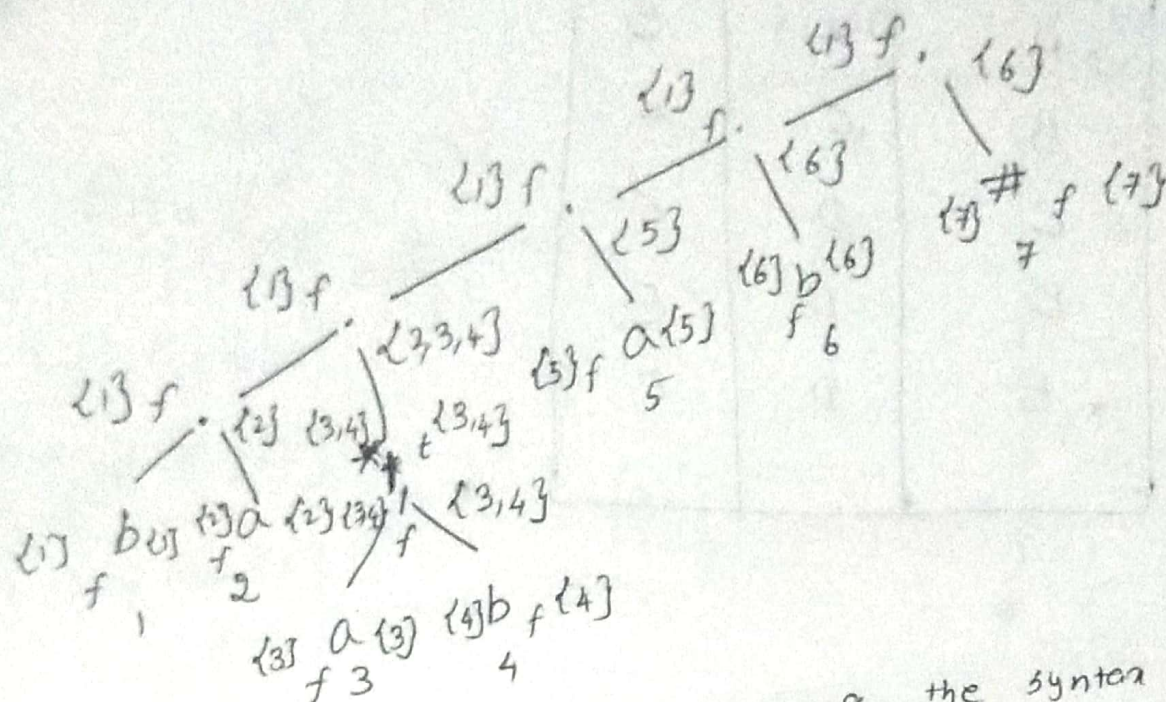


(a) $ba(a/b)^*ab$

Augment the RE with #

$ba(a/b)^*ab\#$



Followpos

Node	Followpos
1	2
2	3, 4, 5
3	3, 4, 5
4	3, 4, 5
5	6
6	7

Root of the syntax tree

$A = \{1\}$

$DTran(A, a) = \emptyset$

$DTran(A, b) = followpos(1) = 2 \Rightarrow B$

$DTran(B, a) = follow(2) = 3, 4, 5 \Rightarrow C$

$DTran(B, b) = \emptyset$

$DTran(C, a) = followpos(3) \cup followpos(5)$
 $= 3, 4, 5, 6 \Rightarrow D$

$DTran(C, b) = followpos(4) = 3, 4, 5 \Rightarrow C$

$DTran(D, a) = D$

$DTran(D, b) = followpos(4) \cup followpos(6)$
 $= 3, 4, 5, 7 \Rightarrow E$

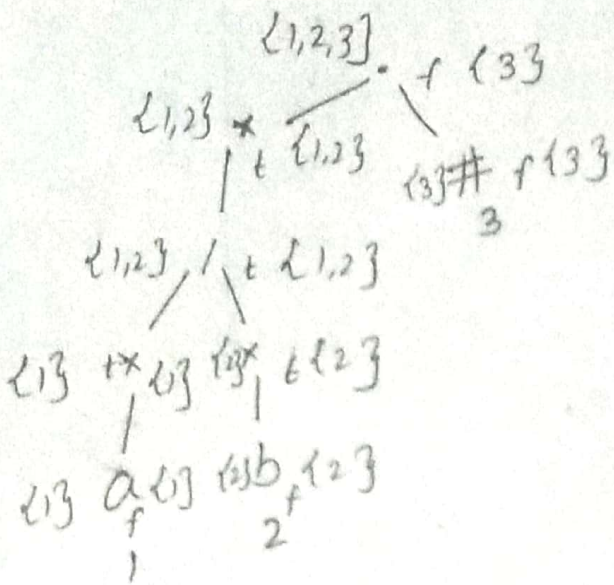
$DTran(E, a) = D$

$DTran(E, b) = C$

State	IIP	
	a	b
→ A	-	B
B	C	-
C	D	C
D	D	E
x E	D	C

$$2) (a^* / b^*)^*$$

$$(a^x/b^x)^x \neq$$



$$A = \{1, 2, 3\}$$

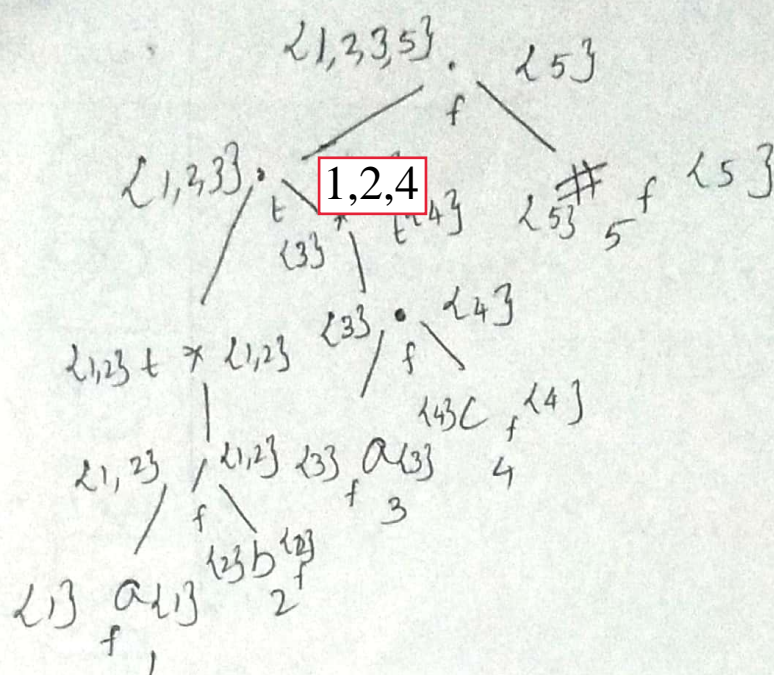
$DTrans[A, a] = followpos(1) = 1, 2, 3$

$$DTran[A, b] = followpos(2) = 1, 2, 3$$

Node	Falltopos
1	1,2,3
2	1,2,3

	a	b
A	A	A

3) $(a/b)^* (ac)^*$
 $(a/b)^* (ac)^* \#$



node	Followpos
1	1, 2, 3, 5
2	1, 2, 3, 5
3	4
4	3, 5

$$A = \{1, 2, 3, 5\}$$

$$DTran[A, a] = followpos(1) \cup followpos(3) = \{1, 2, 3, 5, 4\} = B$$

$$DTran[A, b] = followpos(2) = 1, 2, 3, 5 = A$$

$$DTran[A, c] = \emptyset$$

$$DTran[B, a] = B$$

$$DTran[B, b] = A$$

~~error~~

$$DTran[B, c] = followpos(4) = 3, 5$$

state	I/P		
	a	b	c
A	B	A	\emptyset
B	B	A	C
	A	\emptyset	\emptyset

$$DTran[C, a] = 4 \rightarrow D$$

$$DTran[C, b] =$$

$$DTran[C, c] = \emptyset$$

$$Dtran[D, a] = \text{null}$$

$$Dtran[D, b] = \text{null}$$

$$Dtran[D, c] = C$$

	a	b	c
A	B	A	null
B	B	A	C
C	D	null	null
D	null	null	C

$(a/b)^* a (a/b)^*$