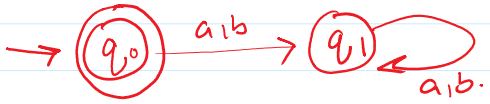
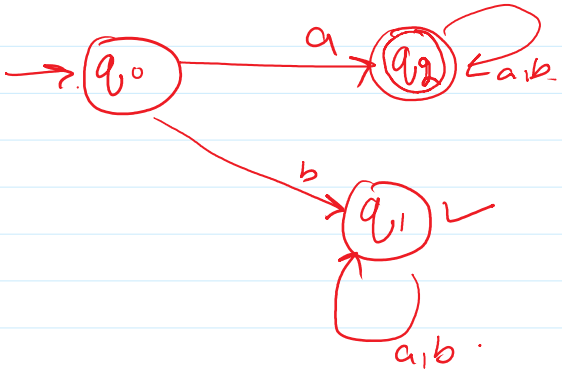
Lecture 6:- M $\Sigma = \{a, b\}$.

Ex:-

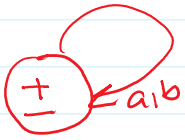


$L(M) = \{\ \}$

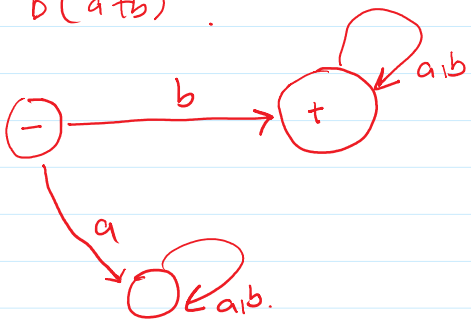
Ex: Trap State, Dead State,



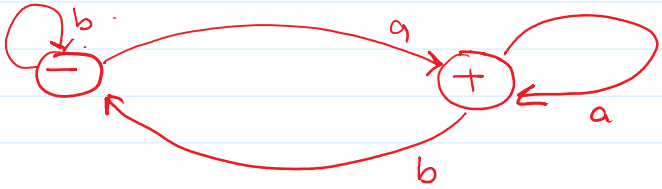
Ex: $(a+b)^*$



Ex $b(a+b)^*$.



Ex:- $(a+b)^*a$

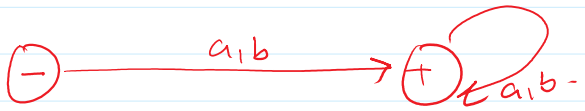


a ✓, b ✗

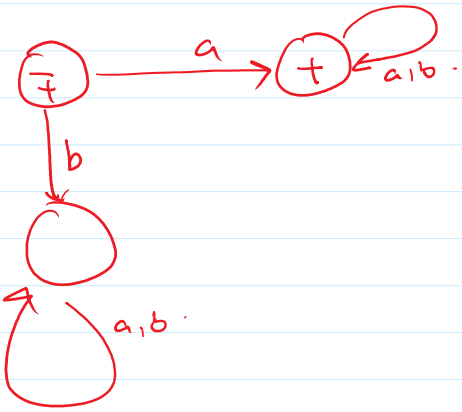
aa ✓, ab ✗

ba ✓, bb ✗.

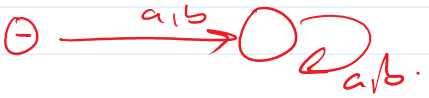
Ex $(a+b)(a+b)^*$.

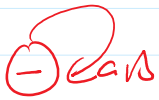


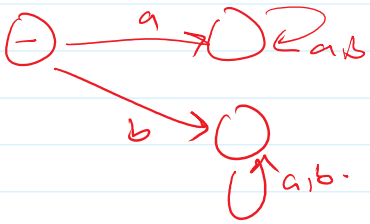
Ex:- $a(a+b)^* + \Lambda$



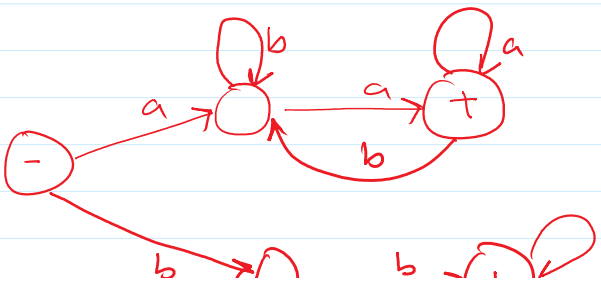
Ex:- Empty language.



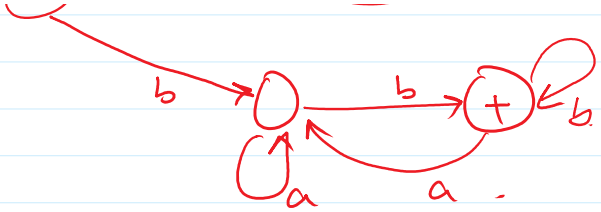




Ex:- $a(a+b)^*a + b(a+b)^*b$. $\Sigma = \{a,b\}$.

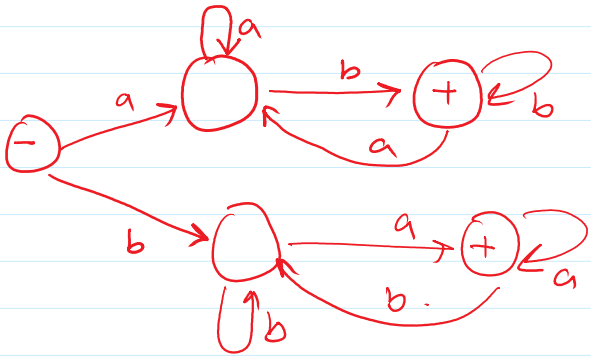


aa	X
bb	ab
aaa ✓	ba X.
aba ✓	aab X
bbb ✓	abb X
bab ✓	baa X
	bba X.



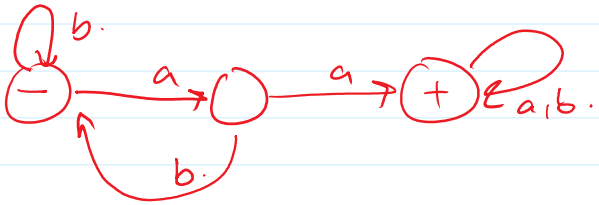
bbb ✓ baa ✗
bab ✓ bba ✗

Ex $a(a+b)^* b + b(a+b)^* a$.



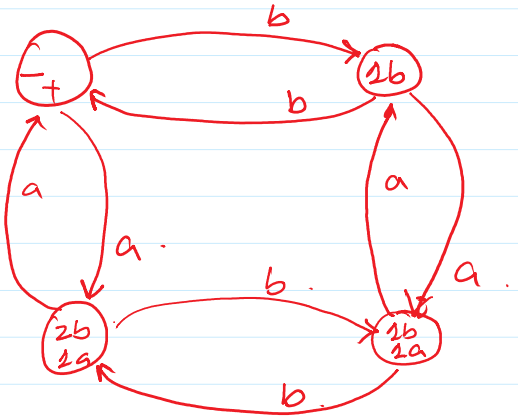
abbb ✓

Ex:- $(a+b)^* aa (a+b)^*$.



ab

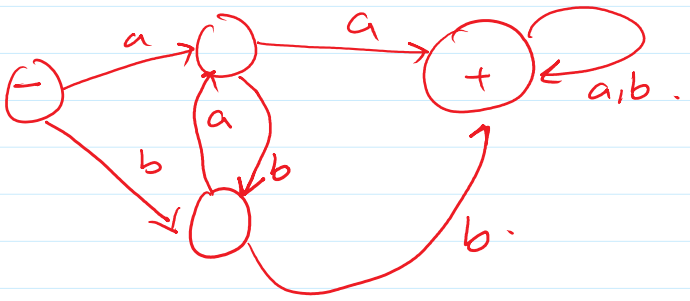
Ex:- EVEN - EVEN.



Λ, aa, bb,

ab ✗ aaa
bax. aab

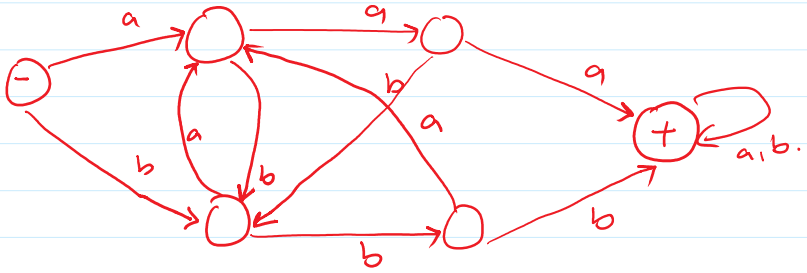
Ex:- $(a+b)^*(aa+bb)(a+b)^*$.



aa
bb
aaa
baa
abb
bbb
aab
bba

babx.
abax.

Ex:- $(a+b)^* (aaa+bbb) (a+b)^*$



Transition Graphs.