lecture 3:-

Prove that $(S+)^* = (S^*)^*$.

$S^* = \{ \Lambda$ & All concatenations of words in $S \}$.

$(S^*)^* = \{ \Lambda$ & All concatenations of words in $S^* \}$.

$= \{ \Lambda$ & " " " " (

Λ & All " " " is S) }.

$= S^*$.

$S = \{1, 2, 3\}$. $S^* = \{\Lambda, 1, 2, 3, 11, 12, 13, \dots\}$.

$(S^*)^* = \{ \Lambda$ & .... }. $= S^*$.

$S^+ = \{$ All concatenations of S excluding $\Lambda \}$.

$(S+)^* = \{ \Lambda$ & All concatenations of $S+ \}$.

$= S^*$.

$(S^+)^* = (S^*)^*$.

(ii) $(S+)+$

$S+ = \{$ All concatenation of S excluding $\Lambda \}$.

$(S+)+ = \{$ A concatn of $S+$ excluding $\Lambda \}$.

X -

Q :- Can

prove.

baba, ---- }.

$1 + 0 = 10 + 0' = 100.$

$\{a^n b^n\}$