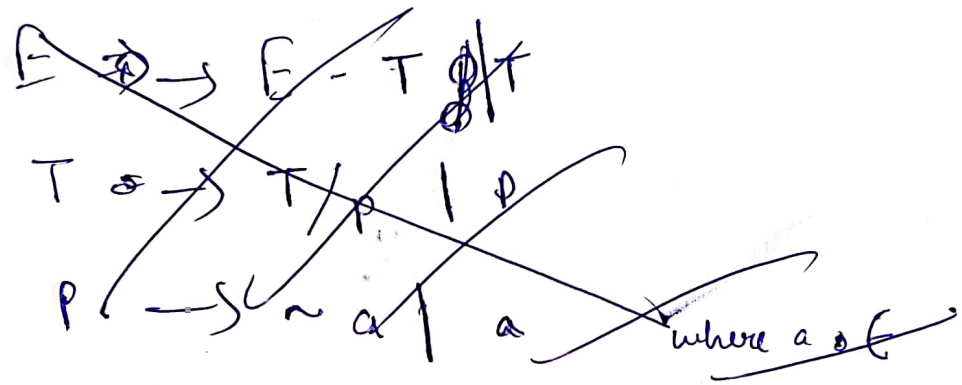
Harshit Marwaha 2020CS0348

1) a) $G_1 = \langle N, T, P, S \rangle$

b) $N = \{ E, T, E', T', D$

$T = \{ [a-z][a-z]^* \quad [0 \ldots 9]^*$

c) Productions rules are



$E \rightarrow TE'$

$E' \rightarrow -TE' \mid \epsilon$

$T \rightarrow DT'$

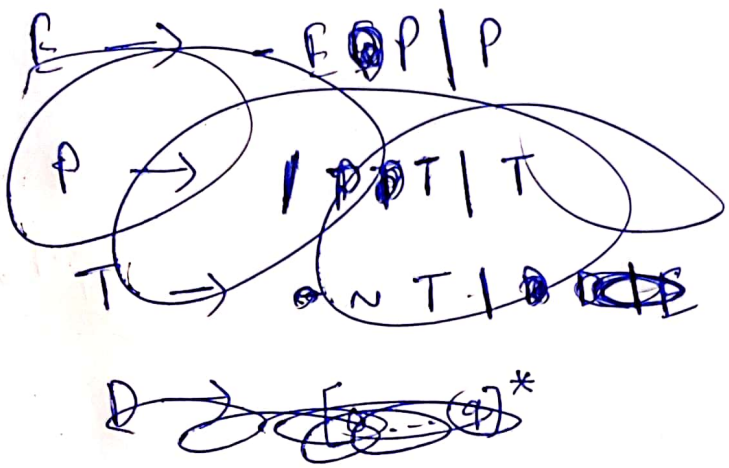
$T' \rightarrow /DT' \mid \epsilon$

$D \rightarrow [0 \ldots 9]^* \mid$

$\sim D' \mid D'$

$D' \rightarrow [0 \ldots 9]^* \mid \epsilon$

(2)



E → -EP | P

P → /TP | T

T → ~T | [1-9][0-9]*

Purely Right linear grammar.

Since its a prefix operator, terminals are at the leftmost position