

Roll No: 210 950

Assignment #02

Q#1) Cryptarithm

i)

$$\begin{array}{r} T O M \\ + N A G \\ \hline G O A T \end{array}$$

$$\begin{array}{r} 3 0 2 \\ + 7 4 1 \\ \hline 1 0 4 3 \end{array}$$

$$T=3$$

$$O=0$$

$$M=2$$

$$N=7$$

$$A=4$$

$$G=1$$

~~O~~

~~G~~

~~M~~

~~T~~

~~A~~

~~5~~

6

~~N~~

8

9

ii)

$$\begin{array}{r} U S S R \\ - P E A C E \\ \hline U S A \end{array}$$

Solution for this equation is not possible as the solution would need assignment of 0 to more than one alphabet which violates the rule

0

1

2

3

4

5

6

7

8

9