**RBSAPSS Cipher**

**1.** First we take the plain text as input

[Think it that its “ ABCDAB”]

**2.** Now we need the key which contains 3 random index value a

**3.** We can see that the whole text is combined with 6 letter. So if the key is [1] [2] [3] [random]

As we divide it 6 / 3 = 2 [for a easy way]

Then the plain text will be divided by 2 part as “ABC” “DAB”

And after every 3index value the key will be repeated.

**4.**

A-->1-->ENCRYPT-->B-->1-->DECRYPT-->A

B-->2-->ENCRYPT-->D-->2-->DECRYPT-->B

C-->3-->ENCRYPT-->F-->3-->DECRYPT-->C

D-->1-->ENCRYPT-->E-->1-->DECRYPT-->D

A-->2-->ENCRYPT-->C-->2-->DECRYPT-->A

B-->3-->ENCRYPT-->E-->3-->DECRYPT-->B

ENCRYPTION FORMULA

E=(P1+K1) mod 26

here ,P1 First index of the plain text;

k1= randomly taken first key; [here, P1 = I(A) = 0; k1 = 1]

E=(P2+K2) mod 26

here B = 1 which is plain text (index 1)

for P2 the key will be K2 which is 2(randomly taken)

[B-->2-->ENCRYPT-->D-->2]

E=(P3+K3) mod 26

here C = 0 which is plain text (index 2)

for P3 the key will be K3 which is 3(randomly taken)

[C-->3-->ENCRYPT-->F-->3]

E=(P4+K1) mod 26

here C = 0 which is plain text (index 3)

for P4 the key will be K3 which is 1(randomly taken)

[D-->1-->ENCRYPT-->E-->1]

E=(P5+K2) mod 26

here C = 0 which is plain text (index 4)

for P5 the key will be K3 which is 2(randomly taken)

[A-->2-->ENCRYPT-->C-->2]

E=(P6+K3) mod 26

here C = 0 which is plain text (index 5)

for P6 the key will be K3 which is 3(randomly taken)

[B-->3-->ENCRYPT-->E-->3]

5. then use the decryption formula

D1 = (E1-K1) mod 26