

PRGA

Array $S = [115, 213, 71, 191, 55, 174, 21, 77, 8, \dots, 20, 6, 22, 23, \dots, 54, 4, 56, 57, \dots, 70, 2, 72, 73, \dots, 76, 7, 78, 79, \dots, 114, 0, 116, 117, \dots, 173, 5, 175, 176, \dots, 190, 3, 192, 193, \dots, 212, 1, 214, 215, \dots, 253, 254, 255]$

Iterasi 1 Plaintext = 2056 , $S = [115, 213, 71, 191, 55, 174, 21, 77]$

$i = 0$

$j = 0$

For Index $= 0$ to length (P) - 1

$= 0$ to $(4) - 1 = 0$ to 3

$i = (0 + 1) \bmod 256$

$= 1$

$j = (j + S[i]) \bmod 256$

$= (0 + 213) \bmod 256$

$= 213$

Swap $S[i], S[j] = S[1], S[213]$

$S[i] = 214$

$U = S[214]$

$C = 214 \oplus P[0]$

$= 214 \oplus 2$

$= 11010110$

$00110010 \oplus$

$11100100 = 228 = \underline{d}$

Iterasi 2

$i = 1$

$j = 213$

For Index $= 0$ to (3)

$i = (i + 1) \bmod 256$

$= (1 + 1) \bmod 256$

$= 2$

$j = (j + S[i]) \bmod 256$

$= (213 + S[2]) \bmod 256$

$= (213 + 71) \bmod 256$

$j = 284 \bmod 256$

$= 28$

Swap $S[i], S[j] = S[2], S[28]$

$t = (S[2] + S[28]) \bmod 256$

$t = (28 + 71) \bmod 256$

$= 99 \bmod 256 = 99$

$U = S[99]$

$= U \oplus P[i]$

$= 99 \oplus 0$

$= 01100011$

$00110000 \oplus$

$= 01010011 = 83 = \underline{S}$

Iterasi 3

$i = 2$

$j = 28$

For index = 0 to (3)

$$i = (i + 1) \bmod 256$$

$$= (2 + 1) \bmod 256$$

$= 3$

$$j = (j + S[i]) \bmod 256$$

$$= (28 + S[3]) \bmod 256$$

$$= (28 + 191) \bmod 256 = 219 \bmod 256$$

$= 219$

$$\text{Swap } S[i], S[j] = S[3], S[219]$$

$$t = (S[3] + S[219]) \bmod 256$$

$$= (191 + 219) \bmod 256$$

$$= 410 \bmod 256$$

$= 154$

$$u = S[154]$$

$$= 154 \oplus 5$$

$$= 10010100$$

$$\oplus 00110101$$

$$10101111 = 175 = -$$

Iterasi 4

$i = 3$

$j = 219$

For index = 0 to (3)

$$i = (i + 1) \bmod 256$$

$$= (3 + 1) \bmod 256$$

$= 4$

$$j = (j + S[i]) \bmod 256$$

$$= (219 + S[4]) \bmod 256$$

$$= (219 + 55) \bmod 256$$

$$= 274 \bmod 256$$

$= 18$

$$\text{Swap } S[i], S[j] = S[4], S[18]$$

$$t = (S[4] + S[18]) \bmod 256$$

$$= (55 + 18) \bmod 256$$

$$= 73 \bmod 256$$

$= 73$

$$u = S[73]$$

$$= 73 \oplus 6$$

$$= 01001001$$

$$\oplus 00110110$$

$$01111111 = 127 =$$

