program for one-time pad version of the Vigenère cipher. In this scheme, the key is a stream of random numbers between 0 and 26. For example, if the key is 3 19 5 . . . , then the first letter of plaintext is encrypted with a shift of 3 letters, the second with a shift of 19 letters, the third with a shift of 5 letters, and so on.

import random

def encrypt(msg):

key=[random.randint(0,25) for \_ in msg]

cipher=''.join(chr((ord(c)-65+k)%26+65) for c,k in zip(msg.upper(),key))

return cipher,key

def decrypt(cipher,key):

return ''.join(chr((ord(c)-65-k)%26+65) for c,k in zip(cipher,key))

msg="HELLO"

cipher,key=encrypt(msg)

plain=decrypt(cipher,key)

print("Message:",msg)

print("Key:",key)

print("Cipher:",cipher)

print("Decrypted:",plain)

