Vernam Cipher program

import random

def textappend(i):

for key,value in keypair.items():

if value == i:

return key

keypair = {

"A": 0,"B": 1,"C": 2,"D":3,"E":4,"F":5,"G":6,"H":7,"I":8,"J":9,"K":10,"L":11,"M":12,"N":13,

"O":14,"P":15,"Q":16,"R":17,"S":18,"T":19,"U":20,"V":21,"W":22,"X":23,"Y":24,"Z":25

}

letters = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"

msg = input("Enter plain text:")

key = ""

for i in range(len(msg)):

key = key + random.choice(letters)

print("key is ",key)

encryptedtext = ""

sum=0

for i in range(len(msg)):

if((keypair[msg[i]]+keypair[key[i]])<26):

sum = (keypair[msg[i]]+keypair[key[i]])

encryptedtext = encryptedtext + textappend(sum)

else:

sum = (keypair[msg[i]]+keypair[key[i]]) - 26

encryptedtext = encryptedtext + textappend(sum)

print("encrypted text is ",encryptedtext)

decryptedtext = ""

for i in range(len(msg)):

if((keypair[encryptedtext[i]]-keypair[key[i]])>=0):

sum = (keypair[encryptedtext[i]]-keypair[key[i]])

decryptedtext = decryptedtext + textappend(sum)

else:

sum = (encryptedtext[encryptedtext[i]]-keypair[key[i]]) + 26

decryptedtext = decryptedtext + textappend(sum)

print("decrypted text is ", decryptedtext)