Ans)

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Ques:- Python program to generate a OTP:

```
import math, random.
def generateOTP():
    digits = "0123456789"
    OTP = ""
    for i in range(4):
        OTP += digits[math.floor(random.random() * 10)]
    return OTP

if __name__ == "__main__":
    print("OTP of 4 digits:", generateOTP())
```

Ques:- def encrypt(text, s):

```
    result = ""

    for i in range(len(text)):
        char = text[i]

        if (char.isupper()):
            result += chr((ord(char) + s - 65) %
                          26 + 65)
        else:
            result += chr((ord(char) + s - 97) %
                          26 + 97)
    return result
```

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~~text = "CAESER CIPHER DEMO.~~

text = "Attack from North"
s = 3

print "Plain text : " + text
print "Shift pattern : " + str(s).
print "Cipher : " + encrypt(text, s)

Ques 3:

```
def generatekey(string, key):
    key = list(key)
    if len(string) == len(key):
        return(key)
    else:
        for i in range(len(string)
                       - len(key)):
            key.append(key[i % len
                           (key)])
        return("".join(key))

def originaltext(cipher_text, key):
    orig_text = []

for i in range(len(cipher_text, key)):
    orig_text = [].
for i in range(len(cipher_text)):
    x = (ord(cipher_text[i]) -
         ord(key[i]) + 26) % 26.
```

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```
        x+= ord('A'
        orig_text.append(chr(x))
    return ("").join(orig_text).

if __name__ == "__main__":
    String = "Cryptography"
    keyword = "Monarchy"
key = generatekey(string, keyword)
ciphertext = cipherText(string, key).
print("cipher text:", cipher_text)
print("Original/Decrypted Text:",
    originalText(cipher_text, key)).
```