Name - Shriyansh Rawthan

Q3

```
def vigenerekey(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 encryption(string, key):
    encry_text = []
    for i in range(len(string)):
        x = (ord(string[i]) + ord(key[i])) %26
        x = x + ord('A')
        encrypt_text.append(chr(x))
    return("".join(encrypt_text))

def decryption(encrypt_text, key):
    orig_text = []
    for i in range(len(encrpt_text)):
```

```
        x = (ord(encry_text[i]) - ord(key[i]) + 26) % 26
        x = x + ord('A')
        orig_text.append(chr(x))
    return("".join(orig_text))

plaintext = "Cryptography"
key = "Monarchy"
keyword = vigenerekey(plaintext, key)
encrypt_text = encryption(plaintext, keyword)
print("Encrypted message:", encrypt_text)
print("decrypted message:", decryption(encrpt_text
    , keyword))
```