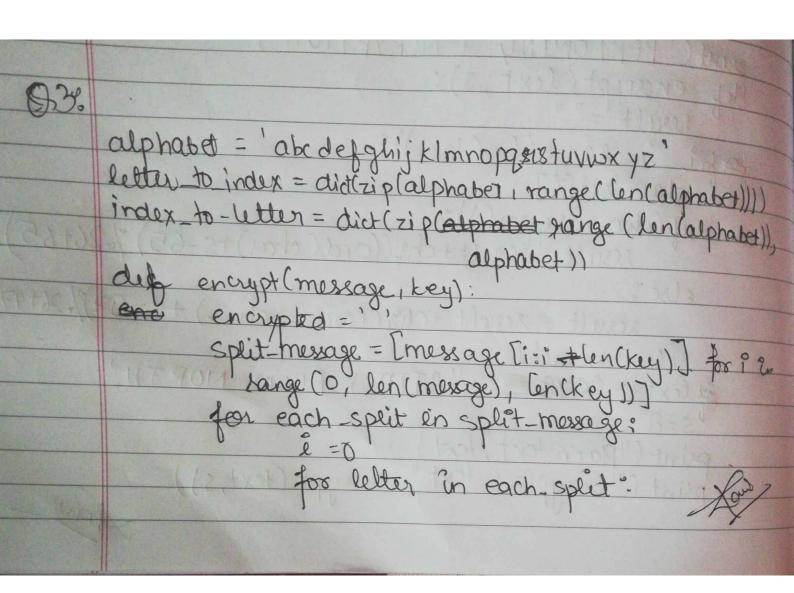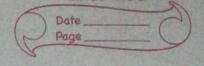NAME- RANI BISHT   SEC-B   SEM-6   COURSE-BCA
SUBJECT- INFORMATION SECURITY
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Q3.

```python
alphabet = 'abcdefghijklmnopqrstuvwxyz'
letter_to_index = dict(zip(alphabet, range(len(alphabet))))
index_to-letter = dict(zip(alphabet, range(len(alphabet)),
                            alphabet))
def encrypt(message, key):
    encrypted = ''
    split-message = [message[i:i +len(key)] for i in
        range(0, len(message), len(key))]
    for each-split in split-message:
        l = 0
        for letter in each-split:
```

```python
            number = (letter_to_index[letter] + letter_to_index
                [key[i]]) % len(alphabet)
            encrypted += index_to_letter[number]
            i += 1
    return encrypted


def decrypt(cipher, key):
    decrypted = ''
    split_cipher = [cipher[i:i + len(key)]
        for i in range(0, len(cipher), len(key))]
    for each_split in split_cipher:
        i = 0
        for letter in each_split:
            number = (letter_to_index[letter]
                - letter_to_index[key[i]]) %
                len(alphabet)
            decrypted += index_to_letter[number]
            i += 1
    return decrypted


def main():
    key = "Monarchy"
    message = "Cryptography"
    encrypted_message = encrypt(message, key)
    decrypted_message = decrypt(encrypted_message,
                key)
    print("Original Message:" + message)
    print("Encrypted Message:" + encrypted_message)
    print("decrypted Message:" + decrypted_message)


main()
```