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Course - BCA 6th Sem Sec A

Subject - Information Security and Cyber Laws

```
(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))
```

encryption

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

decryption

```
def originalText (cipherText, key):  
    origText = []  
    for i in range (len (cipherText)):  
        x = (ord (cipherText [i]) - ord (key [i] + 26)) % 26  
        x += ord ('A')  
        origText.append (chr (x))  
    return (" ".join (origText))
```

(3)

```
if __name__ == "__main__":
```

```
    string = "CRYPTOGRAPHY"
```

```
    keyword = "MONARCHY"
```

```
    key = generateKey(string, keyword)
```

```
    cipher-text = cipherText(string, key)
```

```
    print("Cipher Text : ", cipher-text)
```

```
    print("Original Text : ", originalText(cipher-text, key))
```