STUDY OF CRYPTOGRAPHY SUBSTITUTION TECHNIQUES

AIM :- To study and Implement Substitution Techniques in a Cryptography using python to perform Encryption & Description of a message.

Program:-

```
def encrypt(text, shift):
    result = ""
    for char in text:
        if char.isalpha():
            base = 'A' if char.isupper() else 'a'
            result += chr((ord(char) - ord(base) + shift) % 26 +
ord(base))
        else:
            result += char
    return result

def decrypt(text, shift):
    return encrypt(text, -shift)

text = input("Enter plain text: ")
shift = int(input("Enter shift value: "))

encrypted_text = encrypt(text, shift)
print("Encrypted Text:", encrypted_text)

decrypted_text = decrypt(encrypted_text, shift)
print("Decrypted Text:", decrypted_text)
```

Output:-

```
Enter plain text: ritesh
Enter shift value: 6
Encrypted Text: xozkyn
Decrypted Text: ritesh
```

CONCLUSION :- The substitution technique replaces each letter in the plaintext with another letter based on a fixed shift value. Through this practical, we learned how Caesar Cipher works and how basic encryption and decryption are implemented in Python.