1) To implement the simple substitution technique named Caesar cipher using python language.

PROGRAM:-

```
def main():
    plain = input("\n Enter the plain text: ")
    key = int(input("\n Enter the key value: "))
    print("\n\n\t PLAIN TEXT:", plain)
    print("\n\n\t ENCRYPTED TEXT: ", end="")
    cipher = []
    for char in plain:
        encrypted_char = chr(ord(char) + key)
        if char.isupper() and ord(encrypted_char) > ord('Z'):
            encrypted_char = chr(ord(encrypted_char) - 26)
        elif char.islower() and ord(encrypted_char) > ord('z'):
            encrypted_char = chr(ord(encrypted_char) - 26)
        cipher.append(encrypted_char)
        print(encrypted_char, end="")
    print("\n\n\t AFTER DECRYPTION : ", end="")
    for encrypted_char in cipher:
        decrypted_char = chr(ord(encrypted_char) - key)
        if encrypted_char.isupper() and ord(decrypted_char) < ord('A'):
            decrypted_char = chr(ord(decrypted_char) + 26)
        elif encrypted_char.islower() and ord(decrypted_char) < ord('a'):
            decrypted_char = chr(ord(decrypted_char) + 26)
        print(decrypted_char, end="")
    input("\nPress Enter to exit...")
if __name__ == "__main__":
    main()
```

OUTPUT:-


Enter the plain text: HELLO
Enter the key value: 3
PLAIN TEXT: HELLO
ENCRYPTED TEXT: KHOOR
AFTER DECRYPTION : HELLO
Press Enter to exit...