program for Caesar cipher involves replacing each letter of the alphabet with the letter standing k places further down the alphabet, for k in the range 1 through 25.

Program:

# Caesar Cipher Program in Python

def caesar\_cipher(text, k):

result = ""

for char in text:

if char.isalpha(): # Check if it's a letter

shift = ord('A') if char.isupper() else ord('a')

result += chr((ord(char) - shift + k) % 26 + shift)

else:

result += char # Non-alphabet characters remain unchanged

return result

# Main Program

text = input("Enter the text: ")

k = int(input("Enter shift value (1-25): "))

if 1 <= k <= 25:

encrypted = caesar\_cipher(text, k)

decrypted = caesar\_cipher(encrypted, 26 - k)

print("\nOriginal Text : ", text)

print("Encrypted Text: ", encrypted)

print("Decrypted Text: ", decrypted)

else:

print("Please enter a valid shift value between 1 and 25.")

output:

