**3)Caesar cipher substitution technique using c program**

#include <stdio.h>

#include <string.h>

int main() {

char plaintext[100], ciphertext[100];

int key, i;

printf("Enter a plaintext message: ");

fgets(plaintext, 100, stdin);

printf("Enter the key (1-25): ");

scanf("%d", &key);

for (i = 0; i < strlen(plaintext); i++) {

if (plaintext[i] >= 'A' && plaintext[i] <= 'Z') {

ciphertext[i] = (plaintext[i] - 'A' + key) % 26 + 'A';

} else if (plaintext[i] >= 'a' && plaintext[i] <= 'z') {

ciphertext[i] = (plaintext[i] - 'a' + key) % 26 + 'a';

} else {

ciphertext[i] = plaintext[i];

}

}

printf("Ciphertext: %s\n", ciphertext);

return 0;

}

