EXPERIMENT-1:- Write a C 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:-

#include <stdio.h>

#include <string.h>

void encrypt(char text[], int key) {

int i;

for (i = 0; text[i] != '\0'; ++i) {

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

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

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

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

}

}

}

int main() {

char text[100];

int key, i;

printf("Enter a message: ");

fgets(text, sizeof(text), stdin);

for (key = 1; key <= 25; ++key) {

char encryptedText[100];

strcpy(encryptedText, text);

encrypt(encryptedText, key);

printf("With key %d: %s", key, encryptedText);

}

return 0;

}

Output:-

