Ex. No.:1 (c) **RAIL-FENCE** **Reg. No.: 210701259**

Date:

AIM:

To implement Rail-Fence Cipher technique using C.

ALGORITHM:

1. Get the plaintext string from the user.
2. Take the string length of the plaintext.
3. For each plaintext character do the following-

a. If ch % 2 == 0 put in a[] array

b. Else put in b[] array

4. Take each character in a[] array and put in s[] array and increment the index.
5. After all characters in a[] array are copied, then copy each character from b[] array and put into s[] array and increment the index.
6. Print the contents of s[] array to get ciphertext.

PROGRAM CODE:

```
#include<stdio.h>
#include<string.h>
void main()
{
int i,j,k=0,l=0,m=0;
char s[20],a[10],b[10];
printf("enter a string:");
scanf("%s",s);
for(i=0;i<strlen(s);i++)
{
 if(i%2==0) //even position
 {
 a[k]=s[i];
 k++;
 }

 else //odd position
 {
 b[l]=s[i];
 l++;
 }
}
for(i=0;i<k;i++)
{
 printf("%c ",a[i]);
 s[m]=a[i];
 m++;
```

```
}
printf("\n");
for(i=0;i<l;i++)
{
 printf(" %c",b[i]);
 s[m]=b[i];
 m++;
}
printf("\n\ncipher text is %s",s);
getchar();
}
```

OUTPUT:

```
[root@localhost-live liveuser]# vi railfence.c
[root@localhost-live liveuser]# cc railfence.c
[root@localhost-live liveuser]# ./a.out
enter a string:queenoftears
q e n f e r
 u e o t a s

cipher text is qenferueotas[root@localhost-live liveuser]#
```

RESULT: