**HILL CIPHER**

**SOURCE CODE:**

#include<stdio.h>

#include<conio.h>

#include<string.h>

int main(){

unsigned int a[3][3]={{6,24,1},{13,16,10},{20,17,15}};

unsigned int b[3][3]={{8,5,10},{21,8,21},{21,12,8}};

int i,j, t=0;

unsigned int c[20],d[20];

char msg[20];

//clrscr();

printf("Enter plain text: ");

scanf("%s",msg);

for(i=0;i<strlen(msg);i++)

{ c[i]=msg[i]-65;

printf("%d ",c[i]);

}

for(i=0;i<3;i++)

{ t=0;

for(j=0;j<3;j++)

{

t=t+(a[i][j]\*c[j]);

}

d[i]=t%26;

}

printf("\nEncrypted Cipher Text :");

for(i=0;i<3;i++)

printf(" %c",d[i]+65);

for(i=0;i<3;i++)

{

t=0;

for(j=0;j<3;j++)

{

t=t+(b[i][j]\*d[j]);

}

c[i]=t%26;

}

printf("\nDecrypted Cipher Text :");

for(i=0;i<3;i++)

printf(" %c",c[i]+65);

getch();

return 0;

}

**OUTPUT:**

