2.

Ans.

```c
#include <stdio.h>

#include <string.h>

#include <ctype.h>

main()
{
    int i, j, len2, numstr[100], numkey[100], numcipher[100];

    char str[100], key[100], cipher[100];

    printf("Enter the string to encrypt");

    gets(str);

    for(i=0; j=0; i<strlen(str); i++)
    {
        if(str[i]!="")
        {
            str[j] = toupper(str[i]);

            j++;
        }
    }
    str[j]='\0';

    for(i=0; i<strlen(str); i++)
    {
        numstr[i] = str[i] -'A';
    }

    printf("Enter key string");
    gets(key);

    for(i=0; j=0; i<strlen(key); i++)
    {
```

```c
if ( key[i] != " " )
{
    key [j] = toupper (key [i] );
    j++;
}
}
key [j] = '\0';
    for (i=0; i< strlen (key); i++)
    {
        numkey [i] = key [i] - 'A';
    }

    for (i=0; i< strlen (str); i++)
    {
        numcipher [i] = numstr [i] + numkey [i];
    }

    for (i=0; i< strlen (str); i++)
    {
        if (numcipher [i] >25)
        {
            numcipher [i] = numcipher[i] - 26;
        }
    }

    printf (" One Time Pad Cipher text is \n ");
    for (i = 0; i< strlen (str); i++)
    {
        printf ("%c", (numcipher [i] + 'A')) );
    }
    printf ("\n");
}
```

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Output

Enter a string text to encrypt

One time pad

Enter key string of random text

perfect

One time pad cipher text is

DRVYMOXBSAU

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File   Edit   Selection   View   Go   Run   Terminal   Help

C program.c ✕

C: > Users > AKASH SHUKLA > Desktop > C program.c

```
15      str[j]=toupper(str[i]);
16      j++;
17      }
18    }
19    str[j]='\0';
```

TERMINAL   OUTPUT   PROBLEMS   DEBUG CONSOLE

```
C:\Users\AKASH SHUKLA\Desktop>gcc program.c
program.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
    4 | main()
      | ^~~~

C:\Users\AKASH SHUKLA\Desktop>a.exe
Enter a string text to encrypt
one time pad
Enter key string of random text
perfect
One Time Pad Cipher text is
DRVYMOX8Aü

C:\Users\AKASH SHUKLA\Desktop>
```

cmd
cmd

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