

Sol-2 OTP Cipher:-

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
```

```
main ()
```

```
{
```

```
int i, j, l1, l2, numster[100], numkey[100], numcipher[100];
```

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

```
printf ("Enter a plaintext to encrypt \n");
```

```
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++)
```

```
{
```

```
    numster[i] = str[i] - 'A';
```

```
}
```

```
printf ("Enter a key string of random text \n");
```

```
gets (Key);
```



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

```
{  
    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");
```

```
}
```