Q.1Read from a terminal using Scanf function and printf Using printf function.
function.

```
#include<stdio.h>
intmain()
{
charstr[40];
printf("Entertext: ");
scanf("%s",str);
printf(" ");
printf("Enteredtext=%s",str);
}
```

```
Entertext:
SomyaKanta
Enteredtext=Somya
```

Q2.Read lines of text from a terminal using fgets function and print using puts function.

```
#include<stdio.h>
intmain()
{
intb;
intsize=10;
char*string;
printf("Pleaseenterastring:");
string=(char*)malloc(size);
b=getline(&string,&size,stdin);//stdin-standardinput
if(b==-1)
{
puts("ERROR!");
}
else
{
puts("Youenteredthefollowingstring:");
puts(string);
}
return0;
}
```

```
Please enter a string:Somya Kanta Pattanaik
You entered the following string:
Somya Kanta Pattanaik
```

Q3.Convert
a.UppercasetoLowercase
b.LowercasetoUppercase
c.Togglecase
d.Sentencecase.
a.

```
#include<stdio.h>
#include<string.h>
intmain()
{
charstr[25];
inti;
```

```
printf("Enterthestring:");
scanf("%s",str);
for(i=0;i<=strlen(str);i++)
{
if(str[i]>=65&&str[i]<=90)//A-ZASCIIvalue(65-90)
str[i]=str[i]+32;//Uppercase+32=lowercase
}
printf("\nLowerCaseStringis:%s",str);
return0;
}
```

Enter the string:SOMYA Lower Case String is:somya

b.

```
#include<stdio.h>
#include<string.h>
intmain()
{
charstr[25];
inti;
printf("Enterthestring:");
scanf("%s",str);
for(i=0;i<=strlen(str);i++)
{
if(str[i]>=97&&str[i]<=122)//(a-z)ASCCIvalue97-122
str[i]=str[i]-32;//lowercase-32=Uppercase
}
printf("\nUpperCaseStringis:%s",str);
return0;
}
```

Enterthestring:somya UpperCaseStringis:SOMYA

c.

```
#include<stdio.h>
#include<string.h>
intmain()
{
charStr1[100];
inti;
printf("\nPleaseEnteranyStringtoToggle:");
gets(Str1);
for(i=0;Str1[i]!='\0';i++)
{
if(Str1[i]>='a'&&Str1[i]<='z')
{
Str1[i]=Str1[i]-32;
}
elseif(Str1[i]>='A'&&Str1[i]<='Z')
{
Str1[i]=Str1[i]+32;
}
}
printf("\nTheGivenStringafterTogglingCaseofallCharacters=%s",Str1);
return0;
}
```

Please Enter any String toToggle:SoMyA kAnTa
The Given String after Toggling Case of all Characters=sOmYaKaNtA

d.

```
#include<stdio.h>
#include<string.h>
intmain()
{
charstr[50]={0};
intlength=0,i=0,j=0,k=0;
printf("\nEnterthestring:");
gets(str);
length=strlen(str);
for(i=0;i<length;i++)
{
if((i==0)&&(str[i]>='a'&&str[i]<='z'))
{
str[i]=str[i]-32;
}
elseif(str[i]=='.')
{
if(string[i+1]=='')
{
if(str[i+2]>='a'&&str[i+2]<='z')
{
str[i+2]=str[i+2]-32;
}
}
else
{
if(str[i+1]>='a'&&str[i+1]<='z')
{
str[i+1]=str[i+1]-32;
}
}
}
}
printf("Final string is:%s",str);
}
```

Enter the string:somya kanta pattanaik
Final string is:Somya kanta Pattanaik

Q4.Perform string Concatenation(With and with outstring handling function).

Without:

```
#include<stdio.h>
intmain()
{
charstr1[50],str2[50],i,j;
printf("Enterfirststring:");
scanf("%s",str1);
printf("Entersecondstring:");
scanf("%s",str2);
for(i=0;str1[i]!='\0';++i);
for(j=0;str2[j]!='\0';++j,++i)
{
str1[i]=str2[j];
}
str1[i]='\0';
printf("Output:%s",str1);
return0;
}
```

Enterfirststring:Somya
Entersecondstring:Kanta
Output:Somyakanta

With:

```
#include<stdio.h>
#include<string.h>
intmain()
{
chars1[20];
chars2[20];
printf("Enter the first string:");
scanf("%s",s1);
printf("\nEnter the second string:");
scanf("%s",s2);
strcat(s1,s2);
printf("The concatenated string is:%s",s1);
return0;
}
```

Enter the first string:Somya
Enter the second string:Abdul
The concatenated string is: SomyaAbdul

Q5.Perform String Reversal(With and without string handling function)

Without:

```
#include<stdio.h>
#include<conio.h>
intmain()
{
inti,j,k;
charstr[100];
charrev[100];
printf("Enterastring:\t");
scanf("%s",str);
printf("Theoriginalstringis%s\n",str);
for(i=0;str[i]!='\0';i++);
{
k=i-1;
}
for(j=0;j<=i-1;j++)
{
rev[j]=str[k];
k--;
}
printf("The reverse string is%s\n",rev);
return0;
}
```

Enterastring:Somya
The original string is Somya
The reverse string is lapoS

With:

```
#include<stdio.h>
#include<string.h>
intmain()
{
char name[30]="Hello";
printf("String before strrev:%s\n",name);
printf("String after strrev:%s",strrev(name));
return0;
}
```

Q6.Perform Substring Extraction(With and Without String Handling Functions)

Without:

```
#include<stdio.h>
intmain()
{
char string[1000],sub[1000];
```

```
int position,length,c=0;
printf("Input a string\n");
gets(string);
printf("Enter the position and length of substring\n");
scanf("%d%d",&position,&length);
while(c<length){
sub[c]=string[position+c-1];
c++;
}
sub[c]='\0';
printf("Required substring is\"%s\"\n",sub);
return0;
}
```

```
Input a string          Somya Kanta Pattanaik
Enter the position and length of substring      2
1                                  Requiredsubstringis"o
```

With:

```
#include<stdio.h>
#include<string.h>
intmain()
{
constchar*lineConst="Gopal\"Krushna\"Padhi";
charline[256];
char*subString;
strcpy(line,lineConst);
subString=strtok(line,"\"");
subString=strtok(NULL,"\"");
printf("the thing in between quotes is'%s'\n",subString);
return0;
}
```

```
the thing in between quotes is'Somya'
```

Q7.Copy one string into another and count the no of elements copied. (With and without string handling function).

Without:

```
#include<stdio.h>
intmain()
{
chars1[100],s2[100],i;
intcount;
printf("Enter strings1:");
fgets(s1,sizeof(s1),stdin);
for(i=0;s1[i]!='\0';++i){
```

```
s2[i]=s1[i];
count++;
}
s2[i]='\0';
printf("Strings2:%s",s2);
printf("Number of string copied:%d",count);
return0;
}
```

O/p:

Enter strings1:Somya
Strings2:Somya
Number of string copied:6

With:

```
#include<stdio.h>
#include<string.h>
intmain()
{
charc[100];
charo[100];
printf("\n\nEnter the string:");
gets(o);
strcpy(c,o);
printf("\n\nThe copied string is:%s\n\n",c);
return0;
}
```

O/p

Enter the string:Somya
The copied string is:Somya

Q8.Read a string and prints if it is a palindrome or not.

```
#include<stdio.h>
#include<string.h>
intmain()
{
 char string 1[20];
int i,length;
int flag=0;
printf("Enter a string:");
scanf("%s",string1);
length=strlen(string1);
for(i=0;i<length;i++)
{
```

```
if(string1[i]!=string1[length-i-1])
{
flag=1;
break;
}
}
if(flag)
{
printf("%s is not a palindrome",string1);
}
else
{
printf("%s is a palindrome",string1);
}
return0;
}
```

O/p:

```
Enter a string: myself'
Myself' is not a palindrome
```

Q9.Read a line of text and count all occurrences of particular word.

```
#include<stdio.h>
#include<string.h>
intmain()
{
intstrln,wordln,i,j,k,flag,count=0;
charstr[200],word[20];
printf("Enterlineoftext:n");
gets(str);
printf("Enter the word to count:n");
scanf("%s",word);
strln=strlen(str);
wordln=strlen(word);
for(i=0;i<strln;i++)
{
if(str[i]==word[0]&&((str[i-1]==''||i==0)&&(str[i+wordln]==''||str[i+wordln]='')))
{
for(flag=0,k=i+1,j=1;j<wordln;j++,k++)
{
if(str[k]==word[j])
{
flag++;
}
```

```
}
if(flag==wordln-1)
{
count++;
}
}
}
printf("Number of occurence of'%s'=%dn",word,count);
return 0
}
```

Q10.Read a string and rewrite it in the alphabetical order.

```
#include<stdio.h>
#include<string.h>
intmain()
{
char string[100];
printf("\n\tEnter the string:");
scanf(“%s”,string);
char temp

inti,j;
intn=strlen(string);
for(i=0;i<n-1;i++){
for(j=i+1;j<n;j++){
if(string[i]>string[j]){
temp=string[i];
string[i]=string[j];
string[j]=temp;
}
}
}
printf(“The sorted string is:%s”,string);
return0;
}
```

Q11.Print the word sending with letterS.

```
#include<stdio.h>
#include<string.h>
charstr[100];
intmain()
{
inti,t,j,len;
```

```
printf("Enter a string:");
scanf("%[^\n]s",str);
len=strlen(str);
str[len]='';
for(t=0,i=0;i<strlen(str);i++)
{
if((str[i]=='')&&(str[i-1]=='s'))
{
for(j=t;j<i;j++)
printf("%c",str[j]);
t=i+1;
printf("\n");
}
else
{
if(str[i]=='')
{
t=i+1;
}
}
}
return0
}
```

Enterastring:Somya Kanta Pattanaik Abduls
Abduls

Q12.Delete all repeated words in the line of text.

```
#include<stdio.h>
#include<string.h>
#defineSIZE500
void duplicate Remover(char*,constint);
int main(void)
{
char some String[SIZE];
puts("Entertext:");
fgets(some String,SIZE,stdin);
some String[strcspn(someString,"\n")]=0;
printf("\n%s","Textwithoutrepeatedwords:");
duplicate Remover(some String,SIZE);
}
void duplicate  Remover(char*arrayPtr,constintsizeP)
{
```

```
char word Table[sizeP][sizeP],*tokPtr;
size_ti,j,k,l;
tokPtr=strtok(arrayPtr,"");
strcpy(wordTable[0],tokPtr);
for(i=1;(tokPtr=strtok(NULL,""))!=NULL;i++)
strcpy(wordTable[i],tokPtr);
for(j=0;j<=i;j++)
for(k=j+1;k<=i;k++)
if(strcmp(wordTable[j],wordTable[k])==0)
{
for(l=k;l<i;l++)
strcpy(wordTable[l],wordTable[l+1]);
k=j;
i--;
}
for(l=0;l<=i;l++)
printf("%s",wordTable[l]);
}
```

```
Enter text:
Somya Abdul Abhi Somya Abdul                    Text without repeated words: Somya Abdul Abhi
```