PRACTICAL : 8 - CTSD

1 | **Write a C program that uses functions to perform the following operation;**

    1. To insert a sub-string into a given main string from a given position.

```c
#include <stdio.h>
#include <conio.h>
#include <string.h>

void main()
{
        char a[10];
        char b[10];
        char c[10];
        int p=0,r=0,i=0;
        int t=0;
        int x,g,s,n,o;
        clrscr();

        puts("Enter First String:");
        gets(a);
        puts("Enter Second String:");
        gets(b);
        printf("Enter the position where the item has to be inserted: ");
        scanf("%d",&p);
        r = strlen(a);
        n = strlen(b);
        i=0;

        while(i <= r)
        {
                c[i]=a[i];
                i++;
        }
        s = n+r;
        o = p+n;

        for(i=p;i<s;i++)
        {
                x = c[i];
                if(t<n)
                {
```

```
                        a[i] = b[t];
                        t=t+1;
                }
                a[o]=x;
                o=o+1;
        }

        printf("%s", a);
        getch();
}
```

OUTPUT:

Enter First String : parul

Enter Second String: university

Enter the position where the item has to be inserted: 3

Parul university.

2. To delete n Characters from a given position in a given string.

```
#include <stdio.h>
#include <conio.h>
// prototype of function
void del_str(char [],int, int);
main(){
  int n,p;
  char str[30];
  printf("
 Enter the String:");
  gets(str);
  fflush(stdin);
  printf("
 Enter the position from where the characters are to be deleted:");
  scanf("%d",&p);
  printf("
 Enter Number of characters to be deleted:");
  scanf("%d",&n);
  del_str(str,p,n);
}
//function call
void del_str(char str[],int p, int n){
```

```
    int i,j;
    for(i=0,j=0;str[i]!='\0';i++,j++){
      if(i==(p-1)){
        i=i+n;
      }
    str[j]=str[i];
  }
  str[j]='\0';
  puts(" The string after deletion of characters:");
  puts(str);
}
```

OUTPUT:

Enter the String:Tutorials Point C programming

Enter the position from where the characters are to be deleted:10

Enter Number of characters to be deleted:6

The string after deletion of characters:

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| 2 | **Write a C program to determine if the given string is a palindrome or not.**

```
#include <stdio.h>
#include <string.h>
int main()
{
   char str[] = { "abbba" };

   int l = 0;
   int h = strlen(str) - 1;

   while (h > l) {
      if (str[l++] != str[h--]) {
         printf("%s is not a palindrome\n", str);
         return 0;
      }
   }
  printf("%s is a palindrome\n", str);
  return 0;
}
```

OUTPUT:

abbba is a palindrome