1. C Program to solve quadratic equation

PROGRAM:

```
#include<stdio.h>
#include<math.h>
int main()
{
        int b,a,c,d;
        float r1,r2,s,k;
        printf("enter the a value: ");
        scanf("%d",&a);
        printf("enter the b value: ");
        scanf("%d",&b);
        printf("enter the c value: ");
        scanf("%d",&c);
        d=b*b-4*a*c;
        s=-b+sqrt(d);
        k=-b-sqrt(d);
        r1=s/2*a;
        r2=k/2*a;
        if(d==0)
        {
           printf("the roots are %.2f and %.2f",r1,r2);
                printf("the roots are equal");

        }
        else if(d<0)
        {
                printf("the roots are complex");
           printf("the roots are %.2f and %.2f",r1,r2);
        }
        else
        {
                printf("the roots are imaginary");
        }
}
```

2. C Program for decimal to binary conversion

PROGRAM:

```
#include<stdio.h>

#include<stdlib.h>

int main()

{

int a[10],n,i;

printf("Enter the number to convert: ");
```

```
scanf("%d",&n);

for(i=0;n>0;i++)

{

a[i]=n%2;

n=n/2;

}

printf("\nBinary of Given Number is=");

for(i=i-1;i>=0;i--)

{

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

}

return 0;

}
```

3. C Program factorial using recursion

PROGRAM:

```
#include<stdio.h>
int find_factorial(int);
int main()
{
  int num, fact;
  printf("\nEnter any integer number:");
  scanf("%d",&num);
  fact =find_factorial(num);
  printf("\nfactorial of %d is: %d",num, fact);
  return 0;
}
int find_factorial(int n)
{
  if(n==0)
    return(1);
  return(n*find_factorial(n-1));
}
```

4. Write a C script to ask your name, program name and enrollment number and print it on the screen.

PROGRAM:

```
#include<stdio.h>
int main()
{
        int eno;
        char n[10],pname[10];
        printf("enter the enrollment number: ");
```

```
        scanf("%d",&eno);
        printf("enter the name: \n");
        scanf("%s",&n);
        printf("enter the program name: \n");
        scanf("%s",&pname);
        printf("My name is:%s\n",n);
        printf("The program name is %s\n",pname);
        printf("The enrollment number is %d \n",eno);
}
```

5. Write a C script to find the sum, the average and the product of the four integers entered

PROGRAM:

```
#include<stdio.h>

int main()

{

        int a,b,c,d;

        float sum,product;

        float avg;

        printf("enter the first number: ");

        scanf("%d",&a);

        printf("enter the second number: ");

        scanf("%d",&b);

        printf("enter the third number: ");

        scanf("%d",&c);

        printf("enter the fourth number: ");

        scanf("%d",&d);

        sum=a+b+c+d;

        avg=sum/4;

        product=a*b*c*d;

        printf("sum of the four integers:%.2f",sum);

        printf("average of the four integers:%.2f",avg);

        printf("product of the four integers:%.2f",product);

}
```

6. Write a C program to exchange the values of two variables

PROGRAM:

```
#include<stdio.h>
int main()
{
        int a,b,temp=0;
        printf("enter a value: ");
        scanf("%d",&a);
        printf("enter b value: ");
        scanf("%d",&b);
        temp=a;
        a=b;
        b=temp;
        printf("exchanger of a and b varaibles:%d\n%d",a,b);
}
```

7. Write a C script to display the digits which are in odd position in a given 5 digit number

PROGRAM:

```
int main()
{
        int n,r,odd=0,digit;
        printf("enter the integer number: ");
        scanf("%d",&n);
        printf("\n odd digits present in %d are ",n);
        while(n>0)
        {
                digit=n%10;
                n=n/10;
                r=digit%2;
                if(r!=0)
                {
                        printf("\n %d",digit);
                }
        }
        return 0;
}
```

8. Write a C program to reverse the digits of five digit integer.

PROGRAM:

```
#include<stdio.h>
int main()
{
   int n,sum=0,r;
printf("Enter a number: ");
 scanf("%d", &n);
 while(n!=0)
 {
    r=n%10;
```

```
    sum=sum*10+r;
    n=n/10;
  }
  printf("Reverse of the Number: %d",sum);
  return 0;
}
```

9. Write a C program to concatenate two strings and find the length of the resultant string

PROGRAM:

```
#include <stdio.h>
#include <string.h>
int main()
{
        char s1[100],s2[100];
        int i,j;
        printf("enter string1: ");
        gets(s1);
        printf("enter string2:");
        gets(s2);
        j=strlen(s1);
        for(i=0;s2[i]!='\0';i++)
        {
                s1[i+j]=s2[i];
        }
        s1[i+j]='\0';
        printf("combined two strings='%s'\n",s1);
        printf("length of the string: %d",i+j);
        return 0;
}
```

10. Write a C program to find the position of substring in given string

PROGRAM:

```
#include <stdio.h>
int main()
{
        char str1[10],str2[10];
        int l,i,j;
        printf("enter first string: ");
        gets(str1);
        printf("enter second string: ");
        gets(str2);
        for(l=0;str2[l]!='\0';l++);
        for(i=0,j=0;str1[i]!='\0'&& str2[j]!='\0';i++)
        {
                if(str1[i]==str2[j])
                {
                        j++;
                }
                else
                {
```

```
                        j=0;
                }
        }
        if(j==l)
        {
                printf("substring found at position %d",i-j+1);
        }
        else
        {
                printf("substring not found");
        }
        return 0;
}
```

11. Write a C program to find the gcd for the 2 given numbers

PROGRAM:

```
#include <stdio.h>
int main()
{
   int n1, n2, i, gcd;
   printf("Enter two integers: ");
   scanf("%d %d", &n1, &n2);
   for(i=1; i <= n1 && i <= n2; ++i)
   {
      if(n1%i==0 && n2%i==0)
         gcd = i;
   }
   printf("G.C.D of %d and %d is %d", n1, n2, gcd);
   return 0;
}
```

12. Write a C program to add, subtract and multiply the 2 given numbers passed as command line arguments

PROGRAM:

```
#include<stdio.h>
int main()
{
        int a,b;
        printf("enter a and b values: ");
        scanf("%d%d",&a,&b);
        printf("addition:%d",a+b);
        printf("subtraction:%d",a-b);
   printf("Multiplication:%d",a*b);
}
```