(1)

```
#include<stdio.h>
int main()
{  int a,b;
   printf("Enter two numbers\n");
   scanf("%d %d",&a,&b);
   printf("LCM of %d and %d is %d\n",a,b,lcm(a,b));
}

    int lcm(int a,int b)
{
    static int n=0;
    n=n+b;
    if(n%a==0&&n%b==0)
          return n;
    return lcm(a,b);

}
```

(2)

```
#include<stdio.h>
int hcf(int a,int b)
 {
     if(b==0)
   return a;
 return hcf(b,a%b);
 }
 int main()
 {
     int a,b;
```

```
    printf("Enter two numbers:\n");
    scanf("%d %d",&a,&b);
    printf("%d",hcf(a,b));
 }
```

(3)

```
#include<stdio.h>
int prime(int n);
int main()
{
   int x,n;
  printf("Enter a number:\n");
  scanf("%d",&n);
  x=prime(n);
  return 0;
}
int prime(int n)
 {
   if(n%2==0||n%3==0||n%5==0||n%7==0)
      printf("Its not a prime number");
   else
      printf("Its a prime number");
}
```

(4)

```
#include<stdio.h>
int prime(int n);
int main()
{
   int x,n;
  printf("Enter a number:\n");
```

```
  scanf("%d",&n);
  x=prime(n);
  return 0;
}
int prime(int n)

 { int num;
   if(n%2==0||n%3==0||n%5==0||n%7==0)
      printf("Its not a prime number\n");
   else
     {
      printf("Its a prime number\n");
      num=n+2;
      printf("Next prime number is:\n %d",num);
     }
 }
```

(5)

```
#include<stdio.h>
int prime(int n);

int main()
{
   int n,x;
   printf("Enter a number:\n");
   scanf("%d",&n);
   x=prime(n);
   return 0;
}
int prime(int n)
```

```
{ int i;
   for(i=1;i<=n;i++)
   {
      if(i%2!=0&&i%3!=0&&i%5!=0&&i%7!=0)
         printf(" %d ",i);
   }
}
```

(6)

```
#include<stdio.h>
int prime(int num1,int num2);

int main()
{
   int num1,num2,x,n;
   printf("Enter two number:\n");
   scanf("%d %d",&num1,&num2);
   x=prime(num1,num2);
   return 0;
}
int prime(int num1,int num2)
{ int i;
   for(i=num1;i<=num2;i++)
   {
      if(i%2!=0&&i%3!=0&&i%5!=0&&i%7!=0)
         printf(" %d ",i);
   }
}
```

(7)

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

```
int num;
int Fibonacci(int n);
int main()
{

  int n;
     printf("Enter a number\n");
     scanf("%d",&num);
     printf("First %d Fibnacci numbers are...\n",num);
     Fibonacci(n);
    return 0;
}
int Fibonacci(int n)
   {
      int fib1=1,fib2=1,fib3=0,count;
      printf("%d\n",fib1);
      printf("%d\n",fib2);
      count = 2;
   while(count<num)
   {
      fib3=fib1+fib2;
      count++;
      printf("%d\n",fib3);
      fib1=fib2;
      fib2=fib3;
    }
 }
```

(8)

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

```
void pascal(int n)
{
   for(int line=1;line<=n;line++)
   {
      int C=1;
      for(int i=1;i<=line;i++)
      {
         printf(" %d ",C);
         C=C*(line-i)/i;
      }printf("\n");
   }
}
int main()
{
    int n=9;
    pascal(n);
    return 0;
}
```

(9)

```
#include<stdio.h>
int n;
square(int n);
int main()
{
    int n;
  printf("Enter the number\n");
  scanf("%d",&n);
  square(n);
    return 0;
```

```
}
square(int n)
{
    int num;
    num=n*n;
    printf("Square of %d is \n %d",n,num);
}
```

(10)

```
#include<stdio.h>
float sum;
int add();
int main()
{
   add();

   return 0;
}
int add()
{
   int num=1,count,fact=1;
   while(num<=5)
   {
      fact=1;
      for(count=1;count<=num;count++)
      {
         fact=fact*count;
      }
      sum=sum+(num/fact);
      num++;
```

```
    }
        printf("Sum of the series is %f",sum);
}
```