1. Write a recursive function to print first N natural numbers .

```
#include<stdio.h>
void print(int n)
{
   if(n==0)
      return ;
   print(n-1);
   printf(" %d ",n);
}
int main()
{ int n;
printf("Enter a number : ");
scanf("%d",&n);
printf("%d natural numbers are :",n);
   print(n);
   return 0;
}
```

2. Write a recursive function to print first N natural numbers in reverse order .

```
#include<stdio.h>
void print(int n)
{
   if(n==0)
      return ;
   printf(" %d \n",n);
   print(n-1);
}
int main()
{ int n;
printf("Enter a number : ");
```

```
scanf("%d",&n);
printf("%d natural numbers in reverse order are :\n",n);
   print(n);
   return 0;
}
```

3. Write a recursive function to print first N odd natural numbers .

```
#include<stdio.h>
int main()
{
   int a,b;
   printf("Enter Lower and Upper limit range to check odd No.:\n");
   scanf("%d %d",&a,&b);
   printf("Odd numbers are: \n");
   odd(a,b);
   return 0;
}
odd(int x,int y)
{
   if(x>y)
      return;
   else if(x%2!=0)
      printf("%d\n",x);
   odd(x+1,y);
}
```

4. Write a recursive function to print first N odd natural numbers in reverse order.

```
#include<stdio.h>
int main()
{
   int a,b;
```

```
    printf("Enter Upper and Lower limit range to check odd No.:\n");
    scanf("%d %d",&a,&b);
    printf("Odd numbers are: \n");
    odd(a,b);
    return 0;
}
odd(int x,int y)
{
    if(x<y)
        return;
    else if(x%2!=0)
        printf("%d\n",x);
    odd(x-1,y);
}
```

5. Write a recursive function to print first N even natural numbers.

```
#include<stdio.h>
int main()
{
    int a,b;
    printf("Enter Lower and Upper limit range to check Even No.:\n");
    scanf("%d %d",&a,&b);
    printf("Even numbers are: \n");
    odd(a,b);
    return 0;
}
odd(int x,int y)
{
    if(x>y)
        return;
```

```
    else if(x%2==0)
        printf("%d\n",x);
    odd(x+1,y);
}
```

6. Write a recursive function to print first N even natural numbers in reverse order .

```
#include<stdio.h>
int main()
{
    int a,b;
    printf("Enter Upper and Lower limit range respectevely to check Even No.:\n");
    scanf("%d %d",&a,&b);
    printf("Even numbers are: \n");
    odd(a,b);
    return 0;
}
odd(int x,int y)
{
    if(x<y)
        return;
    else if(x%2==0)
        printf("%d\n",x);
    odd(x-1,y);
}
```

7. Write a recursive function to print squares of first N natural numbers .

```
#include<stdio.h>
void print(int n)
{
    if(n==0)
        return ;
```

```
    print(n-1);
    printf(" %d\n",n*n);
}
int main()
{
     int n;
    printf("Enter a number : ");
    scanf("%d",&n);
    printf("Square of %d natural numbers are :\n",n);
    print(n);
    return 0;
}
```

8. Write a recursive function to print binary of a given decimal number .

```
#include<stdio.h>
int main()
{
    int n;
    printf("Enter the number to convert decimal to binary\n");
    scanf("%d",&n);
    binary(n);
    return 0;
}
binary(int n)
{  int i,a[10];
     for(i=0;n>0;i++)
    {
        a[i]=n%2;
        n=n/2;
    }
```

```
    printf("Binary no. is :\n");
    {
       for(i=i-1;i>=0;i--)
       {
          printf(" %d ",a[i]);
       }
    }
}
```

9. Write a recursive function to print octal of a given decimal number.

```
#include<stdio.h>
int main()
{
   int  num;
   printf("Enter a number :\n");
   scanf("%d",&num);
   octal(num);
   return 0;
}
octal(int num)
{
  printf("Octal of %d is : %o\n",num,num);
}
```

10. Write a recursive function to print reverse of a given number.

```
#include<stdio.h>
int main()
{
   int Num,rev_Num;
   printf("Enter the number to reverse:\n ");
   scanf("%d",&Num);
```

```
    rev_Num=rev_Func(Num);
    printf("\nThe reversed number is :%d",rev_Num);
    return 0;
}
int sum=0,remainder;
rev_Func(int Num){
    if(Num){
        remainder=Num%10;
        sum=sum*10+remainder;
        rev_Func(Num/10);
    }
    else
        return sum;
    return sum;
}
```