ASSIGNMENT-12

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

```
#include <stdio.h>
Void Natural (int);
int main ()
{
  int n;
  Printf ("Enter a number");
  Scanf ("%d", &n);
  Natural (n);
  return 0;
}
Void Natural (int n)
{
  if (n==0)
  return 0;
  N Natural number (n-1);
  Printf ("%d", n);
}
```

2. Write a recursive function to Print first N Natural number in reverse order.

```
#include <stdio.h>
Void natural (int);
int main ()
{
  int n;
  Printf ("Enter a Number");
  Scanf ("%d", &n);
  natural (n);
  return 0;
}
Void natural (int n)
{
```

```
    if (n==0)
    return 0;
    Printf("%d", n);
     natural (n-1);
}
```

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

```
#include <Stdio.h>
Void odd natural (int);
int Main ()
{
    int n;
    Printf("Enter a number \n");
    Scanf("%d", &n);
    Odd natural (n);
     return 0;
}
Void Odd natural (int n)
{
    if (n==0)
     return ;
     odd natural (n-1);
     Printf("%d", 2*n-1);
}
```

4. Write a recursive function to Print first N odd natural number in reverse order.

```
#include <Stdio.h>
Void   odd natural (int);
int   main()
{
    int n;
    Printf("Enter a number");
    Scanf("%d", &n);
```

```
    oddnatural(n);
    return 0;
}
Void oddnatural (int n)
{
    if (n==0)
    return 0;
    Printf(" %d ", 2*n-1);
     oddnatural (n-1);
}
```

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

```
#include<stdio.h>
Void even natural (int);
int main()
{
  int n;
  Printf(" Enter a Number");
  Scanf(" %d", &n);
  evennatural (n);
  return 0;
}
Void even natural (int n)
{
    if (n==0)
      return;
     even natural (n-1);
     Printf (" %d ", 2*n);
}
```

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

```
#include <stdio.h>
Void even natural (int);
int main ()
{
    int n;
    Printf ("Enter a number \n");
    Scanf ("%d", &n);
    even natural (n);
    return 0;
}
Void even natural (int n)
{
    if (n==0)
    Return 0;
    Printf ("%d", 2*n);
    evennatural (n-1);
}
```

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

```
#include <stdio.h>
Void square (int);
int main ()
{
    int n;
    Printf ("Enter a Number: \n");
    Scanf ("%d", &n);
    Square (n);
    return 0;
}
Void square (int n)
{
    if (n==0)
    return;
    square (n-1);
    Printf ("%d", n*n);
}
```

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

```
#include <Stdio.h>
Void binary (int);
int main ()
{
    int x;
    Printf ("Enter a Number");
    Scanf (" %d", &x);
    binary (x);
    return 0;
}
Void binary (int n)
{
    if (x==0)
    return ;
    binary (n/2);
    Printf (" Binary of %d is %d", x, n);
}
```

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

```
#include <Stdio.h>
int main
Void octal (int);
int main ()
{
    int x;
    Printf ("Enter Number");
    Scanf ("%d", &x);
    octal (x);
    return 0;
}
Void octal (int x)
{
    if (n==0)
```

```
    return ;
    octal (n/8);
    Printf (" %d ", n%8);
}
```

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

```
#include<stdio.h>
Void Recursive (int);
int main ()
{
    int x;
    Printf (" Enter a Number ");
    Scanf (" %d ", &x);
    ~~Recurs~~ Recursive (x);
    return 0;
}
Void Reverse (int n)
{
    if (n==0)
    return ;
    Printf (" %d ", n%10);
    Reverse (n/10);
}
```