**ASSIGNMENT 12**

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

#include<stdio.h>

void printN(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

printN(a);

return 0;

}

void printN(int n){

if(n>0)

{

printN(n-1);

printf(" %d", n);

}

}

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

#include<stdio.h>

void printN(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

printN(a);

return 0;

}

void printN(int n){

if(n>0)

{

printf(" %d", n);

printN(n-1);

}

}

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

#include<stdio.h>

void odd(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

odd(a);

return 0;

}

void odd(int n){

if(n>0)

{

odd(n-1);

printf(" %d", 2\*n-1);

}

}

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

#include<stdio.h>

void odd(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

odd(a);

return 0;

}

void odd(int n){

//1 3 5 7

//1 3 5

if(n>0)

{

printf(" %d", 2\*n-1);

odd(n-1);

}

}

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

#include<stdio.h>

void even(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

even(a);

return 0;

}

void even(int n){

if(n>0)

{

even(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(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

even(a);

return 0;

}

void even(int n){

if(n>0)

{

printf(" %d", 2\*n);

even(n-1);

}

}

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

#include<stdio.h>

int printN(int);

int main(){

int a;

printf("Enter n: ");

scanf("%d", &a);

printf("Sum of %d numbers is %d", a, printN(a));

return 0;

}

int printN(int n){

if(n==1)

{

return 1;

}

return n+printN(n-1);

}

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