**Assignment-12**

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

Ans-#include<stdio.h>

void print(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print(a);

}

void print(int x)

{

if(x>0)

{

print(x-1);

printf("%d ",x);

}

}

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

Ans-#include<stdio.h>

void print\_r(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print\_r(a);

}

void print\_r(int x)

{

if(x>0)

{

printf("%d ",x);

print\_r(x-1);

}

}

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

Ans-#include<stdio.h>

void print\_odd(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print\_odd(a);

}

void print\_odd(int x)

{

if(x>0)

{

print\_odd(x-1);

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

}

}

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

Ans-#include<stdio.h>

void print\_odd(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print\_odd(a);

}

void print\_odd(int x)

{

if(x>0)

{

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

print\_odd(x-1);

}

}

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

Ans-#include<stdio.h>

void print\_even(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print\_even(a);

}

void print\_even(int x)

{

if(x>0)

{

print\_even(x-1);

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

}

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

Ans-#include<stdio.h>

void print\_even(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print\_even(a);

}

void print\_even(int x)

{

if(x>0)

{

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

print\_even(x-1);

}

}

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

Ans-#include<stdio.h>

void print(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

print(a);

}

void print(int x)

{

if(x>0)

{

print(x-1);

printf("%d ",x\*x);

}

}

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

Ans-#include<stdio.h>

void binary(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

binary(a);

}

void binary(int x)

{

if(x>0)

{

binary(x/2);

printf("%d",x%2);

}

}

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

Ans-#include<stdio.h>

void octal(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

octal(a);

}

void octal(int x)

{

if(x>0)

{

octal(x/8);

printf("%d",x%8);

}

}

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

Ans-#include<stdio.h>

void reverse(int);

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

reverse(a);

}

void reverse(int x)

{

if(x>0)

{

printf("%d",x%10);

reverse(x/10);

}

}