ASSIGNMENT 12 SOLUTION

Ans 1.

// Online C compiler to run C program online

#include <stdio.h>

void display(int);

int main()

{

int limit;

printf("Enter the number of terms to be printed\n");

scanf("%d", &limit);

printf("\nNatural Numbers from 1 To %d are:", limit);

display(limit);

return 0;

}

void display(int num)

{

if(num)

display(num-1);

else

return;

printf("\n%d\n", num);

}

Ans 2.

#include <stdio.h>

void print(int N);

int main()

{

int a;

printf("Enter the number of terms to be printed in reverse\n");

scanf("%d", &a);

printf("\nNatural Numbers from %d To 1 are:", a);

print(a);

return 0;

}

void print(int N)

{

if(N>=1)

{

printf("\n%d\n", N);

print(N-1);

}

}

Ans 3.

#include <stdio.h>

void display(int);

int main()

{

int limit;

printf("Enter the number of terms to be printed\n");

scanf("%d", &limit);

printf("\nNatural Numbers from 1 To %d are:", limit);

display(limit);

return 0;

}

void display(int num)

{

if(num)

display(num-1);

else

return;

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

}

Ans 4.

#include <stdio.h>

void print(int N);

int main()

{

int a;

printf("Enter the number of terms to be printed in reverse\n");

scanf("%d", &a);

printf("\nNatural Numbers from %d To 1 are:", a);

print(a);

return 0;

}

void print(int N)

{

if(N>=1)

{

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

print(N-1);

}

}

Ans 6.

#include <stdio.h>

void print(int N);

int main()

{

int a;

printf("Enter the number of terms to be printed in reverse\n");

scanf("%d", &a);

printf("\nNatural Numbers from %d To 1 are:", a);

print(a);

return 0;

}

void print(int N)

{

if(N>=1)

{

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

print(N-1);

}

}

Ans 5.

#include <stdio.h>

void display(int);

int main()

{

int limit;

printf("Enter the number of terms to be printed\n");

scanf("%d", &limit);

printf("\nNatural Numbers from 1 To %d are:", limit);

display(limit);

return 0;

}

void display(int num)

{

if(num)

display(num-1);

else

return;

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

}

Ans 7.

#include <stdio.h>

void display(int);

int main()

{

int limit;

printf("Enter the number of terms to be printed\n");

scanf("%d", &limit);

printf("\nNatural Numbers from 1 To %d are:", limit);

display(limit);

return 0;

}

void display(int num)

{

if(num)

display(num-1);

else

return;

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

}

Ans 8.

#include <stdio.h>

// Decimal to binary conversion

// using recursion

int find(int decimal\_number)

{

if (decimal\_number == 0)

return 0;

else

return (decimal\_number % 2 + 10 \*

find(decimal\_number / 2));

}

// Driver code

int main()

{

int decimal\_number;

printf("Enter a decimal number : ");

scanf("%d",&decimal\_number);

printf("%d", find(decimal\_number));

return 0;

}

Ans 9.

#include <stdio.h>

// Decimal to binary conversion

// using recursion

int find(int decimal\_number)

{

if (decimal\_number == 0)

return 0;

else

return (decimal\_number % 8 + 10 \*

find(decimal\_number / 8));

}

// Driver code

int main()

{

int decimal\_number;

printf("Enter a decimal number : ");

scanf("%d",&decimal\_number);

printf("%d", find(decimal\_number));

return 0;

}

Ans 10.

#include <stdio.h>;

//Recursive function to

//reverse digits of number

int reversDigits(int num)

{

static int rev\_num = 0;

static int base\_pos = 1;

if(num > 0)

{

reversDigits(num/10);

rev\_num += (num%10)\*base\_pos;

base\_pos \*= 10;

}

return rev\_num;

}

int main()

{

int number, reversed = 0;

//Input a number from user

printf("Enter any number = ");

scanf("%d", &number);

reversed = reversDigits(number);

printf("Reverse of no. is %d", reversed);

return 0;

}