**ASSIGNMENT 6**

**Ans 1.**

#include <stdio.h>

int main() {

// Write C code here

int num, i, sum = 0; // declare local variables

printf(" Enter a positive number: ");

scanf("%d", &num); // take any positive number

// executes until the condition remains true.

for (i = 0; i <= num; i++)

{

sum = sum + i; // at each iteration the value of i is added to the sum variable

}

// display the sum of natural number

printf("\n Sum of the first %d number is: %d", num, sum);

return 0;

}

**Ans 2.**

#include <stdio.h>

int main() {

// Write C code here

int i=1,n,s=0;

printf("Enter number to set range : ");

scanf("%d",&n);

printf("\nEven numbers in range 1 to %d :\n\n",n);

for(i=1;i<=n;i++)

{

if(i%2==0)

{

printf("%d ",i);

s=s+i;

}

}

printf("\n\nSum of even numbers in range 1 to %d : %d",n,s);

return 0;

}

**Ans 3.**

#include <stdio.h>

int main() {

// Write C code here

int i=1,n,s=0;

printf("Enter number to set range : ");

scanf("%d",&n);

printf("\nEven numbers in range 1 to %d :\n\n",n);

for(i=1;i<=n;i++)

{

if(i%2==1)

{

printf("%d ",i);

s=s+i;

}

}

printf("\n\nSum of odd numbers in range 1 to %d : %d",n,s);

return 0;

}

**Ans 4.**

#include <stdio.h>

int main() {

// Write C code here

int n ;

int sum = 0;

printf("Enter a Number : ");

scanf("%d",&n);

for (int i = 1; i <= n; i++)

sum += (i \* i);

printf("The sum of squares of %d natural numbers is %d",n, sum);

return 0;

}

**Ans 5.**

#include <stdio.h>

int main() {

// Write C code here

int n ;

int sum = 0;

printf("Enter a Number : ");

scanf("%d",&n);

for (int i = 1; i <= n; i++)

sum += (i \* i \* i);

printf("The sum of squares of %d natural numbers is %d",n, sum);

return 0;

}

**Ans 6.**

#include <stdio.h>

int main() {

// Write C code here

int i,fact=1,number;

printf("Enter a number: ");

scanf("%d",&number);

for(i=1;i<=number;i++){

fact=fact\*i;

}

printf("Factorial of %d is: %d",number,fact);

return 0;

}

**Ans 7.**

#include <stdio.h>

int main() {

// Write C code here

int n; // variable declaration

int count=0; // variable declaration

printf("Enter a number : ");

scanf("%d",&n);

while(n!=0)

{

n=n/10;

count++;

}

printf("\nThe number of digits in an integer is : %d",count);

return 0;

}

**Ans 8.**

#include <stdio.h>

int main() {

// Write C code here

int n,i,m=0,flag=0;

printf("Enter the number to check prime:");

scanf("%d",&n);

m=n/2;

for(i=2;i<=m;i++)

{

if(n%i==0)

{

printf("Number is not prime");

flag=1;

break;

}

}

if(flag==0)

printf("Number is prime");

return 0;

}

**Ans 9.**

#include <stdio.h>

int main() {

// Write C code here

int n1, n2, max;

printf("Enter two positive integers: ");

scanf("%d %d", &n1, &n2);

// maximum number between n1 and n2 is stored in max

max = (n1 > n2) ? n1 : n2;

while (1) {

if (max % n1 == 0 && max % n2 == 0) {

printf("The LCM of %d and %d is %d.", n1, n2, max);

break;

}

++max;

}

return 0;

}

**Ans 10.**

#include <stdio.h>

int main() {

// Write C code here

int n, reverse=0, rem;

printf("Enter a number: ");

scanf("%d", &n);

while(n!=0)

{

rem=n%10;

reverse=reverse\*10+rem;

n/=10;

}

printf("Reversed Number: %d",reverse);

return 0;

}