# **Practical 05**

3.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int fact\_no,factorial=1;

printf("Enter the value : ");

scanf("%d",&fact\_no);

if (fact\_no == 0){

printf("1 is the output.");

return;

}

else{

while (fact\_no >=1){

factorial = factorial\*fact\_no;

fact\_no = fact\_no - 1;

}

}

printf("%d is the factorial.",factorial);

}

4.

int main()

{

int no,sumofall=0;

printf("Enter a Number : ");

scanf("%d",&no);

while (no>0){

sumofall = sumofall + no;

no = no -1;

}

printf("%d is the sum of all digits.",sumofall);

}

5.

#include <stdio.h>

#include <stdlib.h>

#include <math.h>

int main()

{

int number,remain;

printf("Enter a Number : ");

scanf("%d",&number);

do{

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

number = number/10;

}while(number>0);

}

6.

int main()

{

int no,pow,ans;

printf("Enter a Number : ");

scanf("%d",&no);

printf("Enter a Number : ");

scanf("%d",&pow);

if (pow == 0){

printf("Answer is 1");

}

else{

while (pow>0){

ans = no \* no;

pow = pow - 1;

}

printf("Answer is %d",ans);

}

}

8.

#include <stdio.h>

#include <stdlib.h>

#include <math.h>

int main()

{

int no,count,digit;

printf("Enter a Number : ");

scanf("%d",&no);

count = (no==0)?1:log10(no)+1;

int array\_num[count];

while (no>0){

digit = no%10;

no = no/10;

array\_num[count] = digit;

count --;

}

printf("Enter the Number again : ");

scanf("%d",&no);

count = (no==0)?1:log10(no)+1;

while (count>0){

printf("%d ",array\_num[count]);

count --;

}

count = (no==0)?1:log10(no)+1;

int x;

int ans=0,number;

for(x=count;x>0;x--){

number = array\_num[x];

ans = ans + pow(number, count);

}

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

if (ans == no){

printf("%d is an Armstrong Number.",no);

}

else{

printf("%d is not an Armstrong Number.",no);

}

}

12.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int no,sum=0;

printf("Enter a Number : ");

scanf("%d",&no);

while (no!=-1){

sum = sum + no;

printf("Enter a Number : ");

scanf("%d",&no);

}

printf("%d",sum);

}

13.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int no[10],number;

int x=0;

while (x<=10){

printf("Enter a Number : ");

scanf("%d",&number);

no[x] = number;

x++;

}

for(x=0;x<=10;x++){

printf("%d ",no[x]);

}

}

## **Section B**

1.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int no,sumof\_positive=0,sumof\_negative=0,zeros=0;

int x;

for(x=1;x<=10;x++){

printf("Enter a Number : ");

scanf("%d",&no);

if (no>0){

sumof\_positive = sumof\_positive + 1;

}

else if (no<0){

sumof\_negative = sumof\_negative + 1;

}

else if (no == 0){

zeros = zeros + 1;

}

else {

printf("not valid");

}

}

printf("Number of Positive : %d\nNumber of Negative : %d\nNumber of Zeroes : %d",sumof\_positive,sumof\_negative,zeros);

}

2.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int number[10];

int x, sum = 0;

int max,min;

printf("Enter 10 Numbers : ");

for (x=0;x<10;x++){

printf("Number %d : ", x + 1);

scanf("%d",&number[x]);

sum += number[x];

if (x==0){

max = number[x];

min = number[x];

}

else{

if (number[x]>max){

max = number[x];

}

if (number[x]<min){

min = number[x];

}

}

}

float avg = (float)sum/10;

printf("\nAverage is %.2f\n",avg);

printf("Maximum Number is %d\n",max);

printf("Minimum Number is %d\n",min);

}

3.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int prices[10];

int x,price,prdc=0;

printf("Enter the prices of the products : ");

for (x=0;x<10;x++){

printf("Item %d ",x + 1);

scanf("%d",&prices[x]);

if (prices[x]>200){

prdc = prdc + 1;

}

}

printf("Number of Products above 200 are : %d",prdc);

}

4.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int Empno,Bsalary,number\_emp=0;

printf("Enter the Employee ID : ");

scanf("%d",&Empno);

while (Empno > -999){

printf("Enter the Basic Salary : ");

scanf("%d",&Bsalary);

if (Bsalary>=5000){

number\_emp += 1;

}

printf("Enter the Employee ID : ");

scanf("%d",&Empno);

}

printf("%d",number\_emp);

}

5.

#include <stdio.h>

#include <stdlib.h>

int main()

{

int Empno,hoursworked;

int count=0,countex=0;

while (1){

printf("\nEnter the Employee Number : ");

scanf("%d",&Empno);

if (Empno == -999){

printf("\nPercentage of workers worked than 40 hours of extra time : %.2f\%",(float)countex/(float)count\*100);

break;

}

count += 1;

printf("Enter the hours that worked : ");

scanf("%d",&hoursworked);

int y;

int OT;

if (hoursworked>40){

y = hoursworked - 40;

OT = 40\*150 + y\*200;

}

else{

OT = hoursworked\*150;

}

if (OT>4000){

countex += 1;

}

printf("%d : %d",Empno,OT);

}

}