# **PRACTICAL 05**

Section A

01)

While :-

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x=0;

while(x<=100)

{

printf("%d ",x);

x++ ;

}

return 0;

}

Do-While :-

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x=0;

do

{

printf("%d ",x);

x++;

}while(x<=100);

return 0;

}

For:-

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x;

for(x=0; x<=100; x++)

{

printf("%d ",x);

}

return 0;

}

02)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x,total=0,marks[10];

float avg;

for(x=0;x<=100;x++)

{

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

total+= marks[x];

}

avg=(float)total/10;

printf("Total marks: %d\n",total);

printf("Average marks %.2f\n",avg);

if(avg<50)

{

printf("Fail\n");

}

else

{

printf("Pass\n");

}

return 0;

}

10)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x,y;

for(x=1 ; x<=5 ; x++)

{

for(y=1 ; y<=x ; y++)

{

printf("\*");

}

printf("\n");

}

return 0;

}

11)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int num,x;

printf("Enter a positive integer:");

scanf("%d",&num);

for (x=2; x<=num/2; x++)

{

if(num%x==0)

{

printf("%d is not a prime number\n",num);

}

}

printf("%d is a prime number\n",num);

return 0;

}

12)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int num,x;

printf("Enter a positive integer:");

scanf("%d",&num);

printf("Factors of %d are:\n",num);

for (x=1; x<=num/2; ++x)

{

if(num%x==0)

{

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

}

}

return 0;

}

12)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int x,sum=0;

printf("Enter numbers to add, enter -1 to stop\n");

while(1)

{

scanf("%d",&x);

if(x==-1)

{

break;

}

sum=sum+x;

}

printf("The sum is %d\n",sum);

return 0;

}

13)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int i,arr[10];

printf("Enter 10 integers:\n");

for(i=0; i<10; i++)

{

scanf("%d",&arr[i]);

}

printf("The array is:[");

for(i=0; i<10; ++i)

{

printf("%d",arr[i]);

if(i<9)

{

printf(",");

}

}

printf("]\n");

return 0;

}

14)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int i,count=0,arr[10];

printf("Enter 10 integers:\n");

for(i=0; i<10; i++)

{

scanf("%d",&arr[i]);

}

for(i=0; i<10; i++)

{

if(arr[i]%2==0)

{

count++;

}

}

printf("There are %d even numbers in the array\n",count);

return 0;

}

Section B

01)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int arr[10];

int i,pos\_count=0,neg\_count=0,zero\_count=0;

printf("Enter 10 integers:\n");

for(i=0;i<10;i++)

{

scanf("%d",&arr[i]);

if(arr[i]>0)

{

pos\_count++;

}

else if(arr[i]<0)

{

neg\_count++;

}

else

{

zero\_count++;

}

}

printf("Number of positive values:%d\n",pos\_count);

printf("Number of negative values:%d\n",neg\_count);

printf("Number of zero values:%d\n",zero\_count);

return 0;

}

02)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int marks[10],i,max\_marks,min\_marks,total\_marks=0;

printf("Enter the marks of 10 students:\n");

for(i=0; i<10; i++)

{

scanf("%d",&marks[i]);

if(i==0)

{

max\_marks=marks[i];

min\_marks=marks[i];

}

else

{

if(marks[i]>max\_marks)

{

max\_marks=marks[i];

}

if(marks[i]<min\_marks)

{

min\_marks=marks[i];

}

}

total\_marks+=marks[i];

}

printf("Maximum marks:%d\n",max\_marks);

printf("Minimum marks:%d\n",min\_marks);

printf("Average marks:%.2f\n",(float)total\_marks/10);

return 0;

}

03)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int i,count=0;

float price[10],total\_price=0,avg\_price;

printf("Enter the price of 10 items:\n");

for(i=0;i<10;i++)

{

scanf("%f",&price[i]);

total\_price+=price[i];

if(price[i]>200)

{

count++;

}

}

avg\_price=total\_price/10;

printf("Average price of an item:%2f\n",avg\_price);

printf("Number of items with price greater than 200:%d\n",count);

return 0;

}

04)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int emp\_no,count=0;

float basic\_salary;

printf("Enter employee number and basic salary(enter -999 to end):\n");

while(1)

{

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

if(emp\_no==-999)

{

break;

}

scanf("%f",&basic\_salary);

if(basic\_salary>=5000)

{

count++;

}

}

printf("Number of employees with basic salary >=5000:%d\n",count);

return 0;

}