

Date:

**Program/Experiment No:1**

**Program/Experiment Name: WRITE A C PROGRAM TO DISPLAY THE WORD "WELCOME".**

**Source Code:**

```
//      DISPLAY WELCOME      //
```

```
#include<stdio.h>
int main()
{
printf("WELCOME");
return 0;
}
```

*Output:*

*WELCOME*

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**Program/Experiment No:2**

**Program/Experiment Name: WRITE A C PROGRAM TO TAKE A VARIABLE INT AND INPUT THE VALUE FROM USER AND DISPLAY IT**

**Source Code:**

*// DISPLAY THE USER INPUT //*

```
#include<stdio.h>
int main()
{
int x;
printf("Enter any number:");
scanf("%d",&x);
printf("The number is %d",x);
return 0;
}
```

**OUTPUT:**

*Enter any number:5
The number is 5*

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**Program/Experiment No:3**

**Program/Experiment Name: WRITE A C PROGRAM TO ADD 2 NUMBERS ENTERED BY THE USER AND DISPLAY THE RESULT.**

**Source Code:**

```
//      ADD TWO NUMBERS      //
```

```
int main()  
{  
    int a, b, c;  
    printf("Enter two numbers\n");  
    scanf("%d%d",&a,&b);  
    c=a+b;  
    printf("Sum of two numbers = %d",c);  
    return 0;  
}
```

**OUTPUT:**

```
Enter two numbers  
5  
6  
Sum of two numbers=11
```

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**Program/Experiment No:4**

**Program/Experiment Name: WRITE A C PROGRAM TO CALCULATE THE AREA AND PERIMETER OF A CIRCLE.**

**Source Code:**

```
// AREA AND PERIMETER OF A CIRCLE //

#include <stdio.h>
#define PI 3.14f
int main()
{
    float rad,area, perm;

    printf("Enter any radius of a circle: ");
    scanf("%f",&rad);
    area=PI*rad*rad;
    perm=2*PI*rad;
    printf("Area of a circle: %0.2f\nPerimeter of a circle:
    %0.2f\n",area,perm);
    return 0;
}
```

**OUTPUT:**

```
Enter any radius of a circle:7
Area of a circle:153.86
Perimeter of a circle:53.96
```

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### Program/Experiment No:5

**Program/Experiment Name:** Write a C program to find maximum between two numbers.

#### Source Code:

```
//    MAXIMUM NUMBER BETWEEN TWO NUMBERS    //
```

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    float num1,num2;
```

```
    printf("Enter any two numbers:");
```

```
    scanf("\n%f\n%f",&num1,&num2);
```

```
        if(num1==num2)
```

```
            printf("both are equal");
```

```
            if(num1>num2)
```

```
                printf("%0.2f is maximum",num1);
```

```
            if(num1<num2)
```

```
                printf("%0.2f is maximum",num2);
```

```
            return 0;
```

```
}
```

#### OUTPUT:

Enter any two numbers:12

25

25 is maximum

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**Program/Experiment No:6**

**Program/Experiment Name: Write a C program to check whether a number is divisible by 5 and 11 or not.**

**Source Code:**

```
//      DIVISIBLE BY 5 AND 11      //
```

```
#include <stdio.h>
int main()
{
    int num;
    printf("Enter any number: ");
    scanf("%d", &num);
    if((num % 5 == 0) && (num % 11 == 0))
    {
        printf(" Number is divisible by 5 and 11");
    }
    else
    {
        printf(" Number is not divisible by 5 and 11");
    }
    return 0;
}
```

**OUTPUT:**

*Enter any number:55*  
*Number is divisible by 5 and 11*

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### Program/Experiment No:7

**Program/Experiment Name:** Write a C program to input angles of a triangle and check whether triangle is valid or not.

#### Source Code:

```
//    ?ANGLES OF A TRIANGLE IS VALID?    //

#include <stdio.h>
int main()
{
    int angle1, angle2, angle3, sum;
    printf("Enter three angles of triangle: \n");
    scanf("%d%d%d", &angle1, &angle2, &angle3);
    sum = angle1 + angle2 + angle3;
    if(sum == 180 && angle1 > 0 && angle2 > 0 && angle3 > 0)
    {
        printf("Triangle is valid.");
    }
    else
    {
        printf("Triangle is not valid.");
    }
    return 0;
}
```

#### OUTPUT:

Enter three angles of triangle:

100

50

30

Triangle is valid

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### Program/Experiment No:8

**Program/Experiment Name: Write a C program to check whether a year is leap year or not.**

#### Source Code:

```
//      CHECK LEAP YEAR      //
```

```
#include<stdio.h>
int main()
{
    int y;
    printf("Enter any year:\n");
    scanf("%d",&y);
    if(y%100==0&&y%400==0)
        printf("%d year is leap year",y);

    if(y%4==0)
        printf("%d year is leap year",y);
    else
        printf("%d year is not leap year",y);

    return 0;
}
```

#### OUTPUT:

```
Enter any year:2016
2016 year is leap year
```



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### Program/Experiment No:8

**Program/Experiment Name:** write a C program to input basic salary of an employee and calculate its Gross salary according to following:

Basic Salary  $\leq$  10000 : HRA = 20%, DA = 80%

Basic Salary  $\leq$  20000 : HRA = 25%, DA = 90%

Basic Salary  $>$  20000 : HRA = 30%, DA = 95%

#### Source Code:

```
// BASIC SALARY //
```

```
#include <stdio.h>
int main()
{
    float basic, gross, da, hra;
    printf("Enter basic salary of an employee: ");
    scanf("%f", &basic);
    if(basic<=10000)
    {
        da=basic*0.8;
        hra=basic*0.2;
    }
    else if(basic<=20000)
    {
        da=basic*0.9;
        hra=basic*0.25;
    }
    else
    {
        da=basic*0.95;
        hra=basic*0.3;
    }
    gross = basic+hra+da;
    printf("Gross salary = %0.2f", gross);
```

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```
    return 0;  
}
```

## OUTPUT

*Enter basic salary of an employee:17855*

*Gross salary = 38388.25*



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## Program/Experiment No:10

### Program/Experiment Name: WRITE A C PROGRAM TO PRINT FIRST N NATURAL NUMBERS USING WHILE LOOP

#### Source Code:

*// PRINT NATURAL NUMBER //*

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int i,end;
    printf("print all natural number:");
    scanf("%d",&end);
    i=1;
    while(i<end)
    {
        printf("%d\n",i);
        i++;
    }
    getch();
}
```

#### OUTPUT

*print all natural number :10*

1  
2  
3  
4  
5  
6  
7  
8  
9

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### **Program/Experiment No:11**

**Program/Experiment Name: WRITE A C PROGRAM TO PRINT ALL THE ODD NUMBERS IN A GIVEN RANGE.**

#### **Source Code:**

```
// ODD NUMBER //

#include<stdio.h>

int main()
{
    int i, number;

    printf("\n Please Enter the Maximum Limit Value : ");
    scanf("%d", &number);

    printf("\n Odd Numbers between 1 and %d are : \n",
number);
    for(i = 1; i <= number; i++)
    {
        if ( i % 2 != 0 )
        {
            printf(" %d\t", i);
        }
    }

    return 0;
}
```

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### *OUTPUT*

*Please Enter the Maximum Limit Value:10*

*Odd Numbers between 1 and 10 are:*

*1      3      5      7      9*

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## Program/Experiment No:12

**Program/Experiment Name: WRITE A C PROGRAM TO FIND THE FACTORIAL OF A GIVEN NUMBER.**

### Source Code:

*// FACTORIAL OF NUMBER //*

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int n,i;
    long f=1;
    printf("Enter a number:\n");
    scanf("%d",&n);
    if(n<0)
        printf("Error! factorial of a negative number does not exit");
    else
    {
        for(i=1;i<=n;i++)
        {
            f*=i;
        }

        printf("Factorial of %d=%d",n,f);
    }

    getch();
}
```

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*OUTPUT*

*Enter a number:*

*5*

*Factorial of 5=120*



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### Program/Experiment No:13

**Program/Experiment Name: WRITE A C PROGRAM TO PRINT THE FIBONACCI SERIES IN A GIVEN RANGE.**

#### Source Code:

```
// FIBONACCI SERIES //

#include<stdio.h>
#include<conio.h>
int main()
{
    int i,n,a=0,b=1,c;
    printf("Enter any value of :");
    scanf("%d",&n);
    printf("%d %d",a,b);
    for(i=3;i<=n;i++)
    {
        c=a+b;
        a=b;
        b=c;
        printf("%d ",c);
    }
    getch();
}
```

#### OUTPUT

Enter any value of :10  
0 1 1 2 3 5 8 13 21 34

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## Program/Experiment No:14

### Program/Experiment Name: WRITE A C PROGRAM TO DISPLAY THE PATTERN

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#### Source Code:

```
#include<stdio.h>
int main() {
    int i, j;
    for (i=1; i<=4; ++i) {
        for (j=1; j<=4; ++j)
            { printf("*"); }
        printf("\n");
    }
    return 0;
}
```

#### OUTPUT

\*\*\*\*

\*\*\*\*

\*\*\*\*

\*\*\*\*

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## Program/Experiment No:14

### Program/Experiment Name: WRITE A C PROGRAM TO DISPLAY THE PATTERN

\*  
\*\*  
\*\*\*  
\*\*\*\*

```
#include <stdio.h>

int main() {
    int i, j;
    for (i = 1; i <=4; ++i) {
        for (j = 1; j <= i; ++j) {
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```

OUTPUT:

\*  
\* \*  
\* \* \*  
\* \* \* \* \*

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## Program/Experiment No:14

### Program/Experiment Name: WRITE A C PROGRAM TO DISPLAY THE PATTERN

\*\*\*\*

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\*

### Source Code:

```
#include<stdio.h>
int main() {
    int i, j;
    for (i=4; i>=1; --i) {
        for (j=1; j<=i; ++j)
            { printf("* "); }
        printf("\n");
    }
    return 0;
}
```

### OUTPUT:

\* \* \* \*

\* \* \*

\* \*

\*

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## Program/Experiment No:15

**Program/Experiment Name:** WRITE A C PROGRAM TO DISPLAY THE PATTERN

1  
12  
123  
1234

### Source Code:

```
#include <stdio.h>
int main()
{
    int i, j, N;

    for(i=1; i<=4; i++)
    {
        for(j=1; j<=i; j++)
        {
            printf("%d", j);
        }
        printf("\n");
    }

    return 0;
}
```

### OUTPUT:

1  
12  
123  
1234

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**Program/Experiment No:16**

**Program/Experiment Name:**