Practical No.01

Aim: Programs based on input output statements (printf() and scanf())

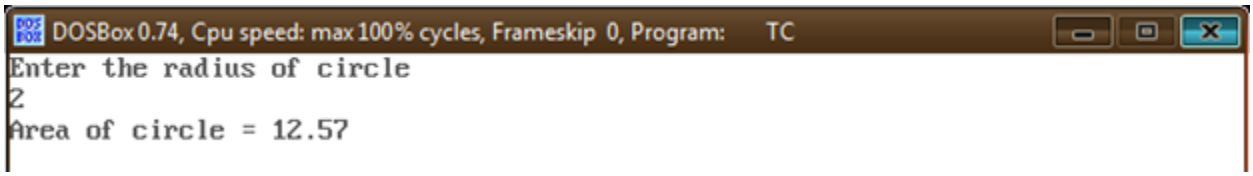
1. C Program to Calculate Area of Circle

Program:

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

void main()
{
   float radius, area;

   clrscr();

   printf("Enter the radius of circle\n");

   scanf("%f",&radius);

   /* M_PI (pi) is a constant in math.h header file */

   area = M_PI*radius*radius;

   printf("Area of circle = %.2f\n", area);

   getch();
}
```

Output:

```
Enter the radius of circle
2
Area of Circle = 12.57
```



2. C Program to Convert Temperature from degree Centigrade to Fahrenheit

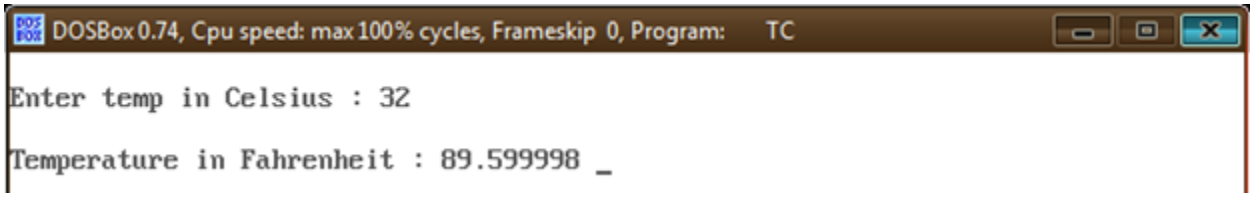
Program:

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

void main()

{
    float celsius, fahrenheit;

    clrscr();

    printf("\nEnter temp in Celsius : ");
```

```
    scanf("%f", &celsius);

    fahrenheit = (1.8 * celsius) + 32;
    printf("\nTemperature in Fahrenheit : %f ", fahrenheit);


   getch();

}
```

Output:

```
Enter temp in Celsius : 32
Temperature in Fahrenheit : 89.59998
```



3. C Program to Solve Second Order Quadratic Equation

Program:

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

void main()

{
    float a, b, c;
    float desc, root1, root2;

    clrscr();

    printf("\nEnter the Values of a : ");
    scanf("%f", &a);
    printf("\nEnter the Values of b : ");
    scanf("%f", &b);
    printf("\nEnter the Values of c : ");
    scanf("%f", &c);

    desc = sqrt(b * b - 4 * a * c);

    root1 = (-b + desc) / (2.0 * a);
    root2 = (-b - desc) / (2.0 * a);

    printf("\nFirst Root : %f", root1);
    printf("\nSecond Root : %f", root2);

    getch();

}
```

Output:

```
Enter the Values of a : 1
Enter the Values of a : -5

Enter the Values of a : 6

First Root : 3.000000
Second Root : 2.000000
```

4. C Program to Calculate Sum of all Subjects and find Percentage

Program:

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

void main()

{
    int s1, s2, s3, s4, s5, sum, total = 500;
    float per;

    clrscr();

    printf("\nEnter marks of 5 subjects : ");
    scanf("%d %d %d %d %d", &s1, &s2, &s3, &s4, &s5);

    sum = s1 + s2 + s3 + s4 + s5;
    printf("\nSum : %d", sum);

    per = (sum * 100) / total;
    printf("\nPercentage : %f", per);


    getch();

}
```

Output:

```
Enter marks of 5 subjects : 80
70
90
80
80
Sum : 400
Percentage : -51.00
```

5. Program to Print All ASCII Value Table in C Programming

Program:

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

void main()

{
    int i = 0;
    char ch;

    clrscr();

    for (i = 0; i < 256; i++) {
    printf("%c ", ch);
    ch = ch + 1;
    }

    getch();

}
```

Output: