

Lab-4 (Class, Object, and Constructor)

1. Write a class Circle containing private variable radius of type float, suitable constructors, and two methods find Area and findCircumference to find area and circumference of circles respectively. Write a separate class MyCircle containing main method to create and use circle objects.

```
C:\Windows\system32\cmd.exe
Area: 102.07
Circumference: 35.81
Area: 28.27
Circumference: 18.85
Press any key to continue
```

2. Write a class Box with private variables width, height and depth and methods to find volume and surface area. Use suitable constructors. Implement the class to find volume and surface area of two boxes

```
C:\Windows\system32\cmd.exe
Box 1 - Volume: 60, Surface Area: 100
Box 2 - Volume: 84, Surface Area: 128
Press any key to continue . . .
```

3. Write a class Distance containing private variables feet of type int and inches of type int, suitable constructors, and two method addDistance and display Distance for adding and display distance objects. Write a separate class MyDistance containing main method to create and use distance objects.

```
C:\Windows\system32\cmd.exe
Distance: 9feet-5inc
Press any key to continue . . .
```

4 Write a C# program to illustrate concept static class and static constructor.

```
C:\Windows\system32\cmd.exe
Static constructor called!
Roll no : 1
Roll no : 1
Press any key to continue . . .
```

5. Write a program to create a structure named company which has name, address, phone and salary as member variables. Read name of company, in address, phone and salary Finally display these member's value.

```
C:\Windows\system32\cmd.exe
Enter Company Details:
Name: abc
Address: ktm
Phone: 980393
Salary: 4000

Company Details:
Company Name: abc
Address: ktm
Phone: 980393
Salary: 4000
Press any key to continue . . .
```

6. Write a C# program to create a class Time with three attribute hours, minutes, and seconds. Use appropriate constructors to initialize variable. Use methods to display time in HH:MM:SS format, add and subtract two time object. Implement the class to add subtract and display time object.

```
C:\Windows\system32\cmd.exe
Enter Time 1:
Hours: 8
Minutes: 50
Seconds: 25

Enter Time 2:
Hours: 3
Minutes: 30
Seconds: 40

Time 1:
08:50:25
Time 2:
03:30:40

Sum of times:
12:21:05
Difference of times:
05:19:45
Press any key to continue . . .
```