

## Assignment 2 Deadline

Poush 4 ,2075

1. What is the significance of operator overloading? What are the points to remember when overloading operators?
2. List the operators which cannot be overloaded. Why the overloading of binary operator with member function does require only one argument whereas the friend function overloading binary operator require two argument? Justify with suitable example.
3. Overload arithmetic assignment operator "+=", "-=", "\*=", "%=", "/=". Using member and non member function.
4. Write a program to overload
  - a. Stream operators(<< and >>)
  - b. Subscript operator ([ ])
  - c. Operation operator(( ))
  - d. Unary minus(-), post increment and pre increment.
  - e. Comparison operator(<).
  - f. Binary operator (+, -, \*, /, %) Using member function and non-member function.
5. Write a program to convert from class to basic for converting a class MEMORY (KB:Bytes:BITS) to int type.
6. Write a program to convert from class to basic for converting a class Distance(feet:inches) to floating type.
7. Write a program to convert from basic type to class type using a class which has two data members meter and centimeters.
8. Write two classes to store distances in meter and centimeter and feet-inches system respectively.write conversions function so that the program can convert objects of both types.
9. Write a program that will convert object from a class represents degree to object of class that represents angular measurement.
10. Write a program to convert object of class that represents weight of gold in tola to object that represent weight in grams.(1tola=11.664gm).
11. Write a program to concatenate two strings by '+' operator overloading and assign the value using assignment operator to third String object.
12. Define a class String.Use overload ==,>,<= to compare the two strings.
13. Define two classes polar and rectangle(Cartesian) to represent points in polar and rectangular system.Use conversion routines to convert from one class type to another by using constructor and casting operator.
14. Write a program to multiply,addition, subtraction, two matrices using operator overloading.
15. Create a class named City that will have two members cityName[20] and DistFromKtm(float).Add member function to set and retrieve the CityName and DistFromKtm separately.Add operator overloading to find the distances etween two cities(just find the difference of DistFromKtm) and the sum of distances of those cities from Kathmandu. In the main function, initialize three city object.set the first and second city to b pokhara and dhangadi.Display the sum of DistFromKtm of pokhara and Dhangadi and distance between pokhara and dhangadi.
16. Write a class to store x,y,z coordinates of a point in three dimensional space. Using operator overloading to add subtract the vectors using member function and friend function.