# OOP Lab Sheet 1.

1. WAP to display following ouput.
   Hello Your_Name
   Welcome to Oop World!!!
2. WAP to display following output using appropriate manipulators.

   | Name | roll_no | Semester | College |
   |------|---------|----------|---------|
   | Abc  | 10      | 2        | CAB     |

3. WAP to read two numbers and print sum. Use
   (a)function with return type (b) function with no return type (c) Without using function
4. WAP to print size of primitive data types of C++.
5. WAP to read any integer number, find factorial using recursion and display output
6. WAP to sort an array in ascending and descending order and display final array using function.
7. WAP to implement basic arithmetic operators using switch.
8. WAP to double any number using reference variable and display both numbers.
9. WAP to implement explicit type conversion.
10. WAP to implement Macros by defining a value and expression both.
11. WAP to implement namespace concept. Idea: create 2 namespace Sem1 and Sem2. Define subjects (any 3 subjects only) of each semester as data/variables (eg. Int s1, float s2) and a function getMyAverage() to calculate average marks of each semester. Read marks of each subject from user. Display average of each semester and final average also.
12. WAP to implement dynamic memory allocation. Idea: Declare an array to store final gpa of semester1 students of csit batch 2079.
13. WAP to implement function overloading. Idea: Use function with some calculation.
    a. By different number of arguments
    b. By different type of arguments
14. WAP to implement inline function.
15. WAP to implement default arguments. Idea: Create a function with 4 parameters including 2 default arguments and call each possible instances of that function and display output.
16. WAP to read principal, rate and time from user. Calculate and print simple interest using
    a. Pass by value    b. Pass by reference       c. Pass by pointer
17. WAP to declare an array of integer of size n, read its elements. Display elements and address of each elements using pointer in following format.

    | Array Index | Element | Address |
    |-------------|---------|---------|
    | 0           | 55      | 0x7ffc7f7c0eec |

18. WAP to implement pointer of array as function argument. Multiply each element by 2 and display output array.

19. WAP to implement concept of static and extern storage class.

20. WAP to check if two arrays are equal or not? [equal array: same number of elements with same frequency of each elements. Eg. a={2,4,6} and b={6,2,4} are equal arrays].Idea: Check if length of both arrays are equal or not, then sort both arrays, Iterate over both array to check if elements are equal or not, If equal print "Equal Arrays" and if not then print "Not Equal Arrays". Make use of functions.

Deadline:-2080/04/12