

**Everest Engineering College  
Sanepa-2, Lalitpur**

**Date of distribution:.....**

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**Subject: Object Oriented Programming in C++**

**Lab-6**

**Title: Dynamic memory allocation**

**Objective:**

- To be familiar with Dynamic memory allocation with C++
- To be familiar with Dynamic constructor and Dynamic initialization of Object
- To be familiar with static data member and static member function.
- To Implement the concept of default arguments

**Theory:**

**Dynamic memory allocation by new and delete operator**

**Dynamic Constructor**

**Dynamic initialization of Object**

**Static data member and function**

**Default arguments**

**Lab exercises (please code yourself and show the output to instructor)**

1. Write a program to illustrate the dynamic memory allocation.
2. WAP to find the sum of n numbers entered by user using Dynamic Memory Allocation in C++.
3. Write a simple program using of dynamic memory allocation which should include calculation of marks of 3 subjects of n students and displaying the result as pass or fail & name, roll. Pass mark is 45 out of 100 in each subject.
4. Write a program to add two complex numbers by using dynamic constructor.
5. Using class write a program that receives inputs principle amount, time and rate. Keeping rate 8% as the default argument, calculate simple interest for three customers.
6. WAP in C++ to calculate simple interest from given principal, time and rate. Set the rate to 15 % as default argument when rate is not provided and also implement the concept of dynamic initialization of object.
7. Write a C++ program to illustrate the use of static data member and static member functions.