**Lab-1 Basics of C++ Programming**

**1 ) Write a program to calculate weight for the given mass. Make acceleration due to gravity g=9.8 as default argument.**

**2) Write a program to overload a function that receives float, character and int type of data.**

**3) Write a program to demonstrate the use of inline function.**

#include <iostream>

using namespace std;

inline int cube(int s)

{

return s\*s\*s;

}

int main()

{

cout << "The cube of 3 is: " << cube(3) << "\n";

return 0;

}

**4) Write a program to add two numbers and display the result using the concept of class and object**

**5) Write a program showing the concept of *endl* and *setw* manipulators.**

#include<iostream>

#include <iomanip>

using namespace std;

int main()

{

int sum=123456;

cout << "setw(0)="<<"\n"<<setw(0)<<sum << endl;

cout << "setw(20)="<<"\n"<<setw(20)<<sum << endl;

}

**6) Write a program showing the concept of reference variable.**

#include<iostream>

using namespace std;

int main()

{

int m=5;

int &n=m;

cout<<"m="<<m<<" n="<<n<<endl;

n++;

//n is reference of m so m and n have now same value

cout<<"m="<<m<<" n="<<n<<endl;

}

**7) Write a program to swap two integer number using call pass by reference**

#include<iostream>

using namespace std;

void swap ( int &a, int &b)

{ int t = a;

a = b;

b = t;

}

int main()

{ int m = 10;

int n = 20;

cout<<"\nBefore swap "<<"m= "<<m<<"n= "<<n;

swap(m, n);

cout<<"\nAfter swap "<<"m= "<<m<<"n= "<<n;

return 0;

}

**8) Write a program to find largest of two numbers using the concept of nesting of member function.**