10 A) write a c++ program with different class related though multiple inheritance and demonstrate the use of different access specifiers by means variables and member functions

```
#include <iostream>
#include <string>

// Base class
class Person {
private:
    std::string name;

protected:
    int age;

public:
    Person(const std::string& n, int a) : name(n), age(a) {}

    void displayInfo() {
        std::cout << "Name: " << name << ", Age: " << age << std::endl;
    }
};

// Derived class 1
class Student : public Person {
private:
    int studentId;

public:
    Student(const std::string& n, int a, int id) : Person(n, a), studentId(id) {}

    void displayStudentInfo() {
        displayInfo();  // Accessing public member function of the base class
        std::cout << "Student ID: " << studentId << std::endl;
    }
};

// Derived class 2
class Employee : public Person {
private:
    int employeeId;

public:
    Employee(const std::string& n, int a, int id) : Person(n, a), employeeId(id) {}
```

```
    void displayEmployeeInfo() {
        // Accessing protected member variable of the base class
        std::cout << "Employee ID: " << employeeId << ", Age (protected): " << age << std::endl;
    }
};

int main() {
    // Creating objects of derived classes
    Student student("Anubha", 20, 1234);
    Employee employee("Anu", 30, 5678);

    // Accessing public member function of the base class
    std::cout << "Student Information:" << std::endl;
    student.displayStudentInfo();

    std::cout << "\nEmployee Information:" << std::endl;
    employee.displayEmployeeInfo();

    return 0;
}
```