

Data Structures
CS 246 - 040
Quiz 01 Solutions

- a. Name all the special member functions of a class

Solution:

default constructor, destructor, copy constructor and assignment operator

- b. Write a pure virtual double constant method named S() that takes an int array parameter and an int parameter

Solution:

virtual double S(int[],int) const = 0;

- c. Write the assignment operator for the class below.

```
class A
{
    private:
        int x;
        int y;

    public:
        A() : x(0), y(0) {}

        ~A() {}
};
```

Solution:

```
A& operator=(const A& rhs)
{
    if(this != &rhs)
    {
        x = rhs.x;
        y = rhs.y;
    }
    return *this;
}
```

- d. What is a class inherited by another class called

Solution:

base class (or superclass)

- e. What is a class that inherits another class called

Solution:

derived class (or subclass)

- f. Describe what each access specifiers does to the members of a class

Solution:

public makes the member accessible everywhere, protected makes the member accessible by derived classes and the class only and private makes the member accessible by the class only