

CSCI 362 Homework Assignment 1

Total Points: 100

1. (20 pt) Write a declaration for a **const member function (accessor function)** named `get_next` that returns a **char pointer** and has one parameter of type **char reference** named `ref`. You can assume the scope is within the class.

2. (10 pt) What is the difference between key word **delete** and **delete[]**?

3. (30 pt) Write the output of the following code.

```
int t1 = 100; //(You can assume the memory address assigned to t1 is 012FF9E0.)
int& ref = t1;
ref = 300;
std::cout << t1 << std::endl;
std::cout << &t1 << std::endl;
std::cout << &ref << std::endl;
t1 = 200;
int* ptr = &t1;
std::cout << ptr << std::endl;
std::cout << *ptr << std::endl;
std::cout << ref << std::endl;
```

4. (40 pt) Read the following lines carefully and indicate which ones are illegal in C++.

```
const int x;
const int y = 10;
int z = 20, k = 30;
y = 10;
y = 15;
const int* ptr1 = &z;
*ptr1 = 15;
ptr1 = &k;
int* const ptr2 = &z;
*ptr2 = 15;
ptr2 = &k;
```