NetID: zeruiw2 QuizID: 78094 Score: 1 / 5 Answer Source: PrairieLearn

1. Consider this simple example

```
#include <iostream>
using namespace std;

class winterfell {
public:
   winterfell(const string & s ): text(s) {};
   char & operator()(int position) { return text[position];}
private:
    string text;
};

int main() {
   winterfell t("Winter Is Coming!");
   for(int i = 0; i < 17; i++)
        // your code here!
   return 0;
}
```

Which of the following statements complete the code so that the output is "Winter Is Coming!"?

A. More than one of the other options is correct.
B. [Correct Answer] [Your Answer] `cout << t(i);`
C. `cout << text[i];`
D. `cout << t[i];`
E. `cout << t;`

2. Consider this simple example.

```
int * p;
int i;
i = 37;
*p = i;
*p = 99;
cout << i << endl;
```

What is the result of executing these statements, assuming that `iostream` is included?

A. `99` is sent to standard out.
B. None of the other options describes the behavior of this code.
C. This code does not compile.
D. This code has a memory leak.,
E. [Correct Answer] This code results in undefined runtime behavior.
F. [Your Answer] `37` is sent to standard out.

3. Consider this simple example.

```
int * a;
int * b;
b = new int(5);
a = b;
*a = 9;
cout << *b << endl;
delete b;
a = NULL;
b = NULL;
```

What is the result of executing these statements if you assume the standard `iostream` library has been included?

A. The memory address of `b` is sent to standard out.
B. [Correct Answer] `9` is sent to standard out and no memory is leaked.
C. None of the other options describes the behavior of this code.
D. This code results in undefined runtime behavior.
E. This code has a memory leak.
F. [Your Answer] `5` is sent to standard out and no memory is leaked.

4. Consider this simple example

```
class Pumpkin {
    public:
        Pumpkin(double radius, int * seeds)
        Pumpkin(const Pumpkin & other);
        ~Pumpkin();
        // more public member functions

    private:
        double radius;
        int *seeds;
        // more private member variables
};
```

Which of the following functions must also be implemented for the `Pumpkin` class for it to function correctly?

A. `operator delete`
B. [Correct Answer] `operator=`
C. `operator()`
D. [Your Answer] No Parameter Constructor
E. `setRadius()`

```
#include <iostream>
using namespace std;

class Bear {
    public:
        Bear() { cout << "Growl "; }
        ~Bear() { cout << "Stomp stomp stomp "; }
};

int main() {
    Bear beary;
    cout << "Run! ";
    return 0;
}
```

5. What is the result of compiling and executing this code?

A. `Run! Stomp stomp stomp`
B. `Run!`
C. [Your Answer] `Growl Run!`
D. [Correct Answer] `Growl Run! Stomp stomp stomp`
E. This code does not compile.