



# Polytechnic Tutoring Center

## CS 1124 REVIEW EXAM II Answer Key, Spring 2013

**Disclaimer:** This mock exam is only for practice. It was made by tutors in the Polytechnic Tutoring Center and is not representative of the actual exam given by the CS Department.

1. For the following questions write whether it will compile or not, and the side effects if there are any.

a) Derived* x = new Base;	<u>Will not compile</u>
b) Base* x = new Derived;	<u>Will compile</u>
c) Base x; Derived y; x = y;	<u>Will compile, slicing will occur</u>
d) Base x; Derived y; y = x;	<u>Will not compile</u>

2. Circle all that apply to the following code:

```
int main()
{
    vector<int*> v;
    for(int j = 0; j < 10000; j++){
        for (int i = 0; i < 10; i++)
        {
            v.push_back(new int(i+2));
        }
        v.clear();
        for (int i = 0; i < v.size(); i++)
        {
            delete v[i];
        }
    }
}
```

- a) **Run to Completion**
- b) Runtime Error
- c) Compilation Error
- d) Dangling Pointers
- e) **Memory Leak**