

Name: _____

Sample Quiz Questions

COMP.2040 – Computing IV

Fall 2018 – Dr. Wilkes

1. **(multiple choice)** (2 points) Assume that we want to define a lambda expression within a function `foo` that declares a local integer variable called `size`. Which of the following definitions of the lambda expression will cause it to inherit `size` by value?

(Circle all appropriate answers)

- a. `[] (int x) { return x < size; }`
 - b. `[=] (int x) { return x < size; }`
 - c. `[&] (int x) { return x < size; }`
 - d. `[size] (int x) { return x < size; }`
 - e. `[=size] (int x) { return x < size; }`
 - f. `[&size] (int x) { return x < size; }`
 - g. none of the above
2. **(multiple choice)** (2 points) In SFML, the `sf::Drawable` class defines the virtual function `draw()` that you needed to override (implement) in your own class derived from the `sf::Drawable` object class. The use of a virtual function is an example of:

(Circle the single best answer)

- a. Chaining
 - b. Inheritance
 - c. Late binding (dynamic binding)
 - d. Overloading
 - e. Redefining
3. **(true/false)** (1 point) In the C++ Standard Template Library (STL), a generic algorithm (such as `stable_sort`) can take a function argument called a predicate that can have any number of parameters.
4. **(true/false)** (1 point) When writing a recursive function, one must always specify a stopping condition.
5. **(short answer)** (4 points) Give an example of how the `auto` type specifier makes life easier for C++ programmers.