SE2811 Quiz 5 Name:

1. (3 pt.) In each of the following, select the pattern that best meets the need
   1. We want to design a package so that we can add new object types without changing the old code.
      1. Strategy
      2. Factory Method
      3. Singleton
      4. Observer
   2. We want to connect to a database and make calls to it from various parts of our code.
      1. Strategy
      2. Factory Method
      3. Singleton
      4. Observer
   3. We want to use an event-driven programming model.
      1. Strategy
      2. Factory Method
      3. Singleton
      4. Observer
2. (1 pt.) By separating display and state change into different classes, the Observer pattern …
   1. Decreases Cohesion
   2. Increases Cohesion
   3. Decreases Coupling
   4. Increases Coupling
3. [6 pt.] Concerning this singleton code:
   1. (2 pt.) Write the missing Singleton constructor. It doesn’t actually have to do anything:

public class Singleton {

private static uniqueInstance = null;

public static void getInstance() {

if(uniqueInstance == null) {

uniqueInstance = new Singleton();

}

}

}

* 1. (4 pt.) Briefly describe two ways to fix Singleton so that getInstance doesn’t double-instantiate.