YOUR NAME: _____

YOUR RCS ID: _____ @rpi.edu

Your RCS ID is the first part of your RPI e-mail address

Principles of Software Quiz 7

Nov. 15, 2018

10 points total

Answer each question below with one of the following design patterns:

Factory, Singleton, Builder, Prototype, Interning, Flyweight
Adapter, Composite, Decorator, Flyweight, Proxy
Interpreter, Observer, Strategy, Visitor

Question 1. (2 points) You have a set of objects that is unlikely to change, but the set of operations on them is likely to change. You want to keep the code for each operation together in a single module.

Question 2. (2 points) You have a Point class whose interface uses polar coordinates and you want to provide a wrapper so it can be used to implement a version of Point that uses rectangular coordinates.

Question 3. (2 points) You want to add scrollbars to an existing window class but don't want to change the basic functionality of the object.

Question 4. (2 points) You want to save memory costs of creating many duplicate objects of a class which has only a few distinct abstract values

Question 5. (2 points)
When new objects of your class are created the new objects should actually have a more appropriate subtype.