

YOUR NAME: _____

YOUR RCS ID: _____ @rpi.edu

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

Principles of Software Quiz 1

September 13 10 points total

Question 1. (2 pts) It is safe to assume that local method variables (variables declared within the body of a method) are always initialized to zero or null.

- (a) true
- (b) false

Question 2. (2 pts) Java uses

- (a) the reference model for variables.
- (b) the value model for variables.
- (c) a mixed model for variables.

Question 3. (2 pts) The Java code

```
public class Cat{
    String name;
    public Cat(String name){
        this.name=name;
    }
    public static void main(String[] args){
        Cat cat1 = new Cat("Scamper");
        Cat cat2 = new Cat("Scamper");
        System.out.println(cat1.equals(cat2));
    }
}
```

prints

- (a) true
- (b) false

Question 4. (2 pts) The Java code

```
String s1 = new String("ab");
String s2 = s1 + "c";
System.out.println(s1 == s2);
```

prints

- (a) true
- (b) false

Question 5. (2 pts) Consider the following set of pre and postconditions for a method:

```
bool is_digit1( char letter )
// Precondition: letter is a char in the range
// 'A' ... 'Z', 'a' ... 'z', 0...9
//
// Postcondition: The value returned by the
// function is true if letter is a digit;
// otherwise the value returned by the function is
// false.
...
```

What is the result of the following call

```
is_digit('?');
```

- (a) true
- (b) false
- (c) The result is undetermined.
- (d) An exception is thrown.