**The questions on this exam will be concerned with:**
- **if-statements**
- **if-else statements**
- **for-loops**
- **for-each loops**

**Any new material covered by Chapter 7 will not be covered on Exam 3.**

**(1)** After this code is run, which Actor is added to the world?
```
int sum = 4 + 6;
if (sum < 10 && sum > 0) {
    addObject(new Shape(), 45, 45);
}
else {
    addObject(new Flower(), 45, 45);
}
```
a) Shape
b) Flower
c) Actor
d) Nothing is added to the world.

**(2)** Given this block of Java-like code, describe in English when each of code blocks a-d would execute:
```
if(booleanExpressionX) {
  //code block a
}
else if (booleanExpressionY) {
  //code block b
}
else if(booleanExpressionZ) {
  //code block c
}
else {
  //code block d
}
```

**(3)** Given this block of Java-like code, describe in English when each of code blocks a-d would execute:
```
if(booleanExpressionX) {
  //code block a
}
else {
  //code block b
}

if(boolean ExpressionY) {
```

```
    //code block c

    if(booleanExpressionZ) {
        //code block d
    }
}
```

**(4)** Given this block of Java-like code, describe in English when each of code blocks a-d would execute:

```
if(booleanExpressionX) {
  //code block a
}
if(booleanExpressionY) {
  //code block b
}

if(boolean ExpressionZ) {
  //code block c
}
else {
  //code block d
}
```

**(5)** Use the following for-loop definition to answer parts a – d. Parts e & f do not use the same code.

```
for(int count = 1; count < 9; count++) {
    addObject(new Question(), 34, 34);
}
```

a) What is the initial value of this loop's counter variable?
b) What is the value of this loop's counter variable when the loop is done executing?
c) Circle the part of the code above that is considered the loop body.
d) How many times would this loop execute?

**(6)** Which of the following would be the correct choice to fill in the blank in the code to make this loop execute 5 times?

```
for (int count = 1; _____; count++) {
    //some code for loop
}
```

a) count < 5
b) count <= 5
c) count < 6
d) count <= 6

**(7)** Write the code that gets all the Flowers from the scenario and then moves each flower 5 pixels to its right.