

# CIS 3.5, spring 2010, Final Review

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- Your midterm will take place on Monday 5/24/2010.
- The final will cover each of the topics covered in Units I through IV.
- All test questions will be drawn from the presentations and labs.
- Below are series of questions that relate to each of the topics that we covered. If you can answer all of the questions you can consider yourself prepared for the exam.

## Principles of Web Design

1. Define “affordances”.
  - a. **Far too many of you missed this the first time around.**

## XHTML

1. Define “markup languages”.
2. There are 3 things that markup languages can be used for; what are they?
3. Define Tag, Element and Attribute.
4. What is wrong with the following lines of XHTML?

```
<P BGCOLOR=BLUE> This is a new paragraph. <B><I>This text is bold and  
italic</B></I> <BR>
```

5. XML documents have “minimal components”. What is missing from the following “minimal XHTML document”?

```
<html xmlns="http://www.w3.org/1999/xhtml">  
<head>  
  <title>simple document</title>  
<body>  
  <p>a simple paragraph</p>
```

## CSS

1. Why use CSS (we discussed 5 reasons in class)?
2. There are 3 ways to implement CSS on a site, what are they?

## Processing

1. What is the “internet”? How is the “Internet” different from the WWW?
2. For this class, what’s the difference between a “full strength programming language” and a scripting language?
3. Define ‘variable’.
4. Define ‘event listener’.
5. What’s the difference between a vector and a bitmap image?

## JavaScript

1. We discussed 7 things that JavaScript can be used to do; list two.

### **Game Design**

1. Define "ludology".
2. Define "narratology".
3. Define "game theory".
4. Describe the "theory of natural funativity".
5. The theory of "natural funativity" when applied to humans, speculates that there are 3 abstract areas (components) that might make a game fun. Describe them?
6. We also described 3 concrete rules that can be applied to try and make a game fun. What were they, describe them.

### **SCRATCH**

1. Scratch is an Imperative, Procedural, Object Oriented programming language. Describe how it is:
  - a. Imperative
  - b. Procedural
  - c. Object-Oriented

### **Game – Mathematics/ Game State / MDA**

1. Collision detection is a common problem in game programming. We discussed two basic techniques for doing this. Name them.
2. "Overlap testing" has several flaws, name one of them.
3. If a game is a progression or sequence of "states", what is a state?
4. What is MDA? What do the letters in MDA stand for?

### **Mobile Game Programming**

1. How is mobile device programming (especially in regards to games) different then programming for PC's or console devices.
2. Name one thing you should do to ensure the success of a game on a mobile device (that is specific to mobile devices).

### **Agents**

1. Define "agent" in general terms.
2. What is a "computer agent".
3. We enumerated 4 specific components of a "software agent". Name and describe them.
4. We enumerated 2 specific advantages of using an "agent-based programming" approach. Name and describe them.

### **NetLogo**

1. In Netlogo, you have "patches" and "turtles" describe each of these terms.

### **Visual Programming Languages**

1. What is a Visual Programming Language?