

CSE-C3210 Web Software Development : Exam

11.12.2015

- All answers should easily fit on a single answer sheet.
- Write on each paper your **name**, your **student number** including any checking characters, the **code and name of this course**, **examination hall**, **date**, the **number of papers returned** and **your signature**.
- If the question number is followed by an asterisk ★, you should select all options that apply. If there is no asterisk, select only one.
- No additional materials, calculators etc. allowed.

HTML & CSS

1. What is wrong with the following HTML snippet? (max 1 sentence, 1 point)

```
<div>
  <p>This is a <a href="#">link</p></a>
</div>
```

2. What does the following CSS snippet do? (max 1 sentence, 1 point)

```
p span {
  font-style: italic;
}
```

HTTP

3. Explain **briefly** the key differences between HTTP GET and HTTP POST (max 3 sentences, 2 points)

4. Consider the URL <https://www.example.com/foobar?q=banana&id=561> Explain briefly the following parts: (2 points)

- a) `https://`
- b) `www.example.com`
- c) `/foobar`
- d) `?q=banana&id=561`

JavaScript & jQuery

5. The following JavaScript is executed. What, if any, will be the contents of variable `tmp`? (1 point)

```
var foo = [1, 'string', '2'];

function d(a) {
  return {r: a[1] + a[a.length-1]};
}

var tmp = d(foo);
```

6. Explain briefly **what happens** in the following lines of jQuery/JS code. You can refer to the line numbers in your explanation. **When** are the different parts of the code executed? (3 points)

```
1. $(document).ready(function() {
2.   var stuff = ['apple', 'banana', 'orange'];
3.   $.each(stuff, function(index, value) {
4.     $("#fruits").append("<p>" + (index+1) + ". " + value + "</p>");
5.   });
6. });
```

APIs

7. Explain briefly what is meant by REST and how it works (max 4 sentences, **3 points**)

Sessions & Security

8. Mallory is writing a blog post on a blogging service where she wrote the following as a title for the post. The **beginnings** of the texts she wrote are shown below. What is she trying to do in the two cases? Explain briefly. (**2 points**, 1 for each)

- a) Cat<script> *rest of the text not shown*
b) Cat'); INSERT INTO *rest of the text not shown*

9. Explain briefly the basic idea of Cross-Site Request Forgery (CSRF)? (max 3 sentences) (**2 points**)

Django

10. ★ Which claims below are **true** about Django's models (**1 point**)
- a. Django's models don't have to be designed for a specific relational database (MySQL, Postgres, etc..)
 - b. Models are typically changed in templates
 - c. Models convert data from relational database form to objects and vice versa
 - d. ForeignKey fields can be used to refer to other objects
11. Briefly explain what the following snippet in Django's template would do (**1 point**)
- ```

 {% for bird in birds %}
 {{bird.name}} ({{bird.binomial_name}})
 {% endfor %}

```
12. Choose which of the following is done by Django's views... (**1 point**)
- a. Defines the structure of the database
  - b. Collects the required information for the output
  - c. It handles executing JavaScript code
  - d. Defines the layout of the output