TIE-23500 / TIE-23506 Web Software Development : Exam
Date: 2.3.2017
Examiner: Petri Ihantola

- All answers should easily fit on a single answer sheet.
- Write on each paper your name and your student number
- No additional materials, calculators etc. allowed.
1. What is the key difference between div and span elements? (max 2 sentences) 
   (1 point)

2. What does the following CSS style definition make italic? (Max 1 sentence) (1 point)
   p i {
     font-style: italic;
   }

HTTP

3) When some web page is browsed for the first time, we get a HTTP response code 
200 OK for most of the items the browser loads. The next time some items return a 
response code 304 Not Modified. What is going on (1 point) and how does it work (1 
point) ?
   (max 2 sentences, 2 points)

4) Consider the URL https://www.example.com/foobar?q=banana&id=561 Explain 
briefly what are the following parts of the URL (2 points)
   a) https://
   b) www.example.com
   c) /foobar
   d) ?q=banana&id=561
JavaScript & jQuery

5) The following JavaScript code is executed. What (if anything) is printed in the console? (2 points)

```javascript
var foo = function () {
    var i = 0;
    return function () {
        console.log(i);
        i++;
    }()
};

foo();
foo();
```

6) Look at the code below. What happens when you click the link? (2 points)

```html
<!doctype html>
<html>
<head>
<title> Demo </title>
</head>
<body>
    <a href="http://jquery.com/"> jQuery </a>
    <script src="jquery.js"></script>
    <script>
        $( document ).ready(function() {
            $('a').click(function( event ) {
                alert( "Hello" );
            });
        });
    </script>
</body>
</html>
```
7) You see a client sending the following requests to a REST API at example.com. Explain what you assume each request to do. (one sentence per request, **3 points**)
   a. GET http://www.example.com/customers/12345
   b. GET http://www.example.com/customers/12345/orders
   c. POST http://www.example.com/customers/12345/orders

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) ```html
   <script>..... rest of the text not shown ....
   ```
   b) ```sql
   Cat'; INSERT INTO ..... rest of the text not shown ....
   ```

Django

9) (**total 4 points**) The following snippets are a Django view and the corresponding urls.py. The service hosts **private** photo albums for a number of users.

    views.py
    @login_required(login_url='/login/')
def del_page(request, album, page_num):
    page = Page.objects.get_object_or_404(album=album,number=page_num)
    page.delete()
    return HttpResponseRedirect('/albums/"

    urls.py
    urlpatterns = [
    url(r'^delete/(?P<album>\w+)/(?P<page_num>[0-9][2])$', views.del_page),
    ...
other urls...

(3 points) Briefly explain 3 different scenarios that can what happen when a user visits the URL: http://some server.com/delete/vacation/42
Use the line numbers if necessary.

(1 point) There is an authorization problem in the code. What is it? (Max 2 sentences.)