HTML & CSS

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>
```
APIs

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) ```javascript
      .... rest of the text not shown ....
   ```
   b) ```
      Call(), 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.

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

```python
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 happen when a user visits the URL: http://someserver.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.)