

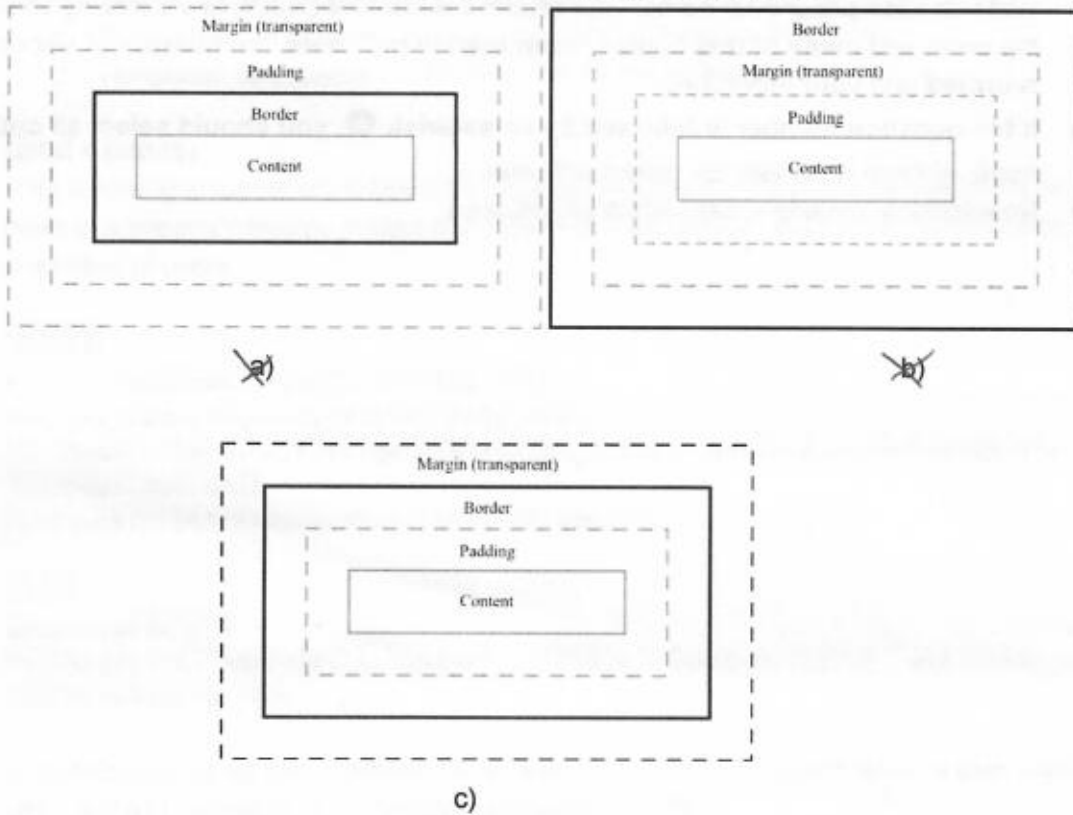
CSE-C3210 / CS-C3170 Web Software Development : Exam

22.12.2016

- 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. Which of the following best describes the CSS box model (1 point)



2. What does the following CSS snippet do? (max 3 sentences, 1 point)
How could it be simplified? (max 2 sentences, 1 point)

```
p h1#epilogue {  
  font-style: italic;  
}  
h1 {  
  color: red;  
}
```

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 and how does it work?
(max 2 sentences, **2 points**)
4. How does a server set cookies? (**1 point**)
 - a. Cookies are included in the `head` element of html pages
 - b. Browser automatically requests for cookies from a standardized URL
 - c. Cookies are transmitted in the HTTP headers
 - d. Cookies can only be set using Javascript
 - e. None of the above

JavaScript & jQuery

5. The following JavaScript is executed. What, if anything, will be the contents of variable **b**? (**1 point**)

```
var a = [0,2,4];
function foo(n) {
    return n*n;
}
var b = a.map(foo);
```
6. Explain briefly **what happens** in the following line of jQuery code snippet. You can refer to the line numbers in your explanation. **When exactly** are the different parts of the code executed? (**3 points**)
 1. `$(".btn").click(`
 2. `function() {`
 3. `$("#contents").append("<p>Hello.</p>");`
 4. `}`
 5. `);`

APIs

7. Explain briefly the REST concepts of addressability and statelessness.
(max 4 sentences, **2 points**)

Sessions & Security

8. Explain briefly how Cross Site Request Forgery (CSRF) works. (max 4 sentences) (**2 points**)

Django

9. ★ Which of the following statements are **true** for Django templates? (1 point)

- a. It is possible to make a for-loop over a list of items in a template
- b. Variables can be used in templates this way: {% variable_name %}
- c. Templates can contain and execute arbitrary Python code
- d. Templates can specify HTTP Headers for the response

10. (total 4 points)

The following snippets are a Django view and the corresponding urls.py that could have been in someone's course project (they weren't) The service hosts **private** photo albums for a number of users.

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/")
```

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://someserver.com/delete/vacation/5`
Use the line numbers if necessary.

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