

T-106.4300 Web Software Development : Exam

December 2012

- 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**.
- Return all papers, including scratch papers.
- **If the question number is followed by an asterisk *, you should select all options that apply.** If there is no asterisk, select only one.
- Unless otherwise specified, all questions are worth one point. Some are easier, some are harder.
- No additional material allowed.

Questions

Give feedback from our experimental Python exercise environment

There is a feedback questionnaire in A+ (the last exercise round) that takes only couple of minutes to go through. If you answer this questionnaire by today, you will get one extra point to this exam.

HTTP, HTML & CSS

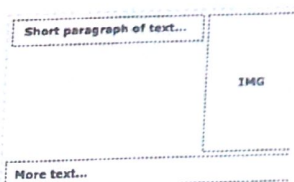
1 For the following fragment of HTML

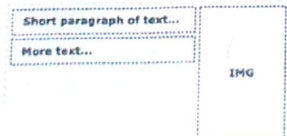
```
<div>
  
  <p id="first">Short paragraph of text...</p>
  <p id="second">More text..</p>
</div>
```

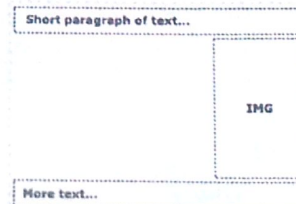
and CSS style definition

```
img { float: right; }
```

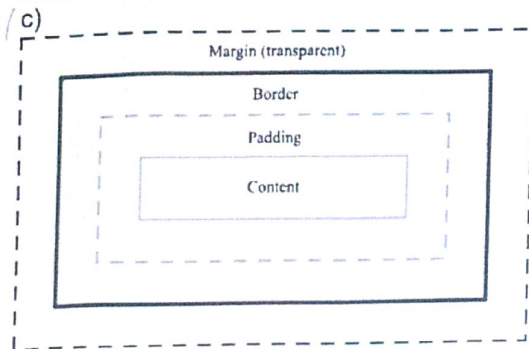
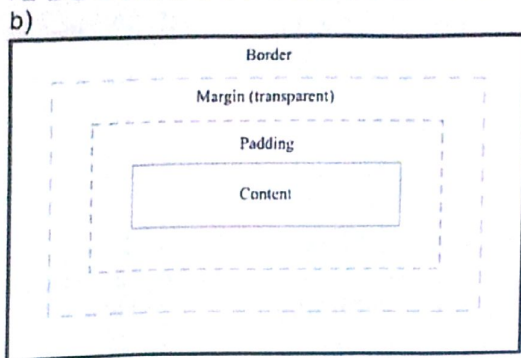
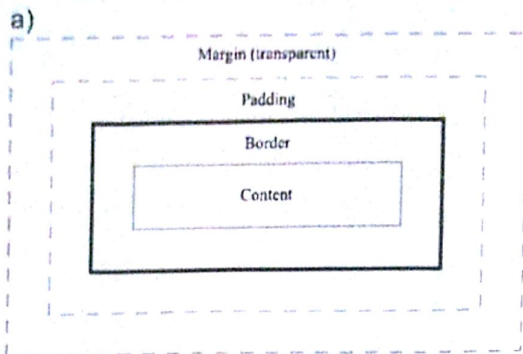
Which of the following best describes the resulting layout?

a) 

b) 

c) 

2 Which of the following best describes the CSS box model



3 Explain **briefly** the different (a-e) parts of the URL:

<http://www.example.org:8901/foo?bar=32>
--a-- -----b----- -c- -d- ---e---

Python

4 What will the code print?

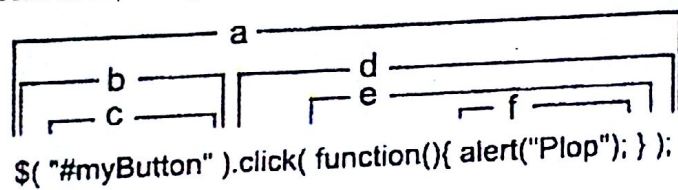
```
user = {'name': 'John', 'grades': (1, 2, 3, 4)}  
print user['grades'][2]
```

5 What the following code snippet does?

```
def a(b, c, d): pass
```

JavaScript & jQuery

- 5 ☉ Which of the following specify a function that will return a number?
- a `function myFunction() { return 3; }`
 - b `public Number function myFunction() { return 3; }`
 - c `var myFunction = function() { return 3; }`
 - d `Number function myFunction() { return 3; }`
- 6 With jQuery, the easiest way to load new HTML content from URL `/products/2/` and replace element's (id `examplediv`) content is:
- a `jQuery("#examplediv").update("/products/2/");`
 - b `jQuery("#examplediv").load("/products/2/");`
 - c `jQuery().get("/products/2/").update("#examplediv");`
 - d `jQuery().get("/products/2/").html("#examplediv");`
- 7 Explain **briefly** what each element a-f does in the following piece of code. Focus on explaining the meaning rather than the syntax.



Sessions & Security

- 8 When you are using Django's session framework, what data is stored on the server and what on client (i.e. browser)? (max 3 sentences)
- 9 Briefly explain the basic idea of Cross-Site Request Forgery (CSRF) attack. You don't need to explain how to protect from CSRF attacks. (max 5 sentences)

Django

- 10 What are the essential parts of Django applications (i.e. files in most Django apps) and how those are related to each other (e.g. how they communicate with each other)?
(max 4 points)
- 11 Assume that you have Django model class Poll defined in your your application. How can you fetch all Poll objects from the database?
- a `Poll.objects.all()`
 - b `get_all_objects(Poll)`
 - c `Poll.all()`
- 12 Which of the following statements are **true** for Django templates?
- a In addition to HTML, templates can also render XML, JSON, and text
 - b Templates can inherit other templates
 - c Variables can be used in templates this way: `{{variable_name}}`
 - d Templates can contain and execute arbitrary Python code
 - e Templates can specify any HTTP Headers for the response

