

CMPT 165 Sample Exam Questions

- [This is **not** a **complete exam**; it is just a collection of questions of the type that may be asked. It is not meant to illustrate the difficulty or length of the actual exams.]
- [Text in square brackets and in a sans-serif font (like this bullet) is information about these sample questions, and wouldn't be part of the exam itself.]
- [These questions may or may not be relevant to on-campus offerings. Consult with your instructor.]
- Please hand in all answers on the question paper or multiple choice answer sheet. **You must hand in both the question sheet and multiple choice answer sheet.**
- You must use **pencil** on the multiple choice answer sheet. Either pen or pencil can be used on the question sheet.
- Read through the entire exam before you begin. All “figures” are at the end of the exam.
- You are allowed to bring a cheat sheet: one sheet of $8\frac{1}{2} \times 11$ " paper with hand-written information on one side. Otherwise, no books, calculators, or any other aids are allowed.
- In all cases where user input is required for a program, you can assume that it is in the correct form.
- If you don't think there is enough information to answer a question, make a reasonable assumption that allows you to answer the question and note it beside your answer.

Part I: Multiple Choice

For each question below, indicate which is the best answer. Fill in the answers **on the “General Purpose Answer Sheet”**, not on the question paper.

[The actual midterm will have 20 multiple choice questions; the final will have 30. Questions 1–4 would be reasonable questions for the midterm or final exam. Questions 5–6 apply to the final exam only.]

1. The XHTML tag <**dfn**> is used to indicate...
 - A. a statement that you are confident (definite) about.
 - B. a newly-defined term.
 - C. a deficient section of the text.
 - D. None of these.
2. In the XHTML fragment , which is the *tag*?
 - A. a
 - B. href
 - C. page.html
 - D. href="page.html"
3. Which of these is **not** an XHTML 1.0 (strict) tag?
 - A. <cite>
 - B. <link>
 - C. <dl>
 - D. <section>
4. Which is a CSS colour for *pink*?
 - A. #911
 - B. #055
 - C. #faa
 - D. #6ee
5. Which of these is a Python statement?
 - A. a
 - B. b + c
 - C. a = b + c
 - D. None of these are statements.
6. What type is the result of $16 * 2 + 1$?
 - A. integer
 - B. float
 - C. string
 - D. boolean

Part II: Longer Answers

1. Suppose you are currently looking at this page in your browser:

`http://www.sfu.ca/~userid/resume/educ.html`

... and that the page contains the following links.

What is the absolute URL that each of these links takes you to? That is, if you are looking at the above URL, and click the link given below, what URL will then display in your browser's "location" bar?

(a) ``

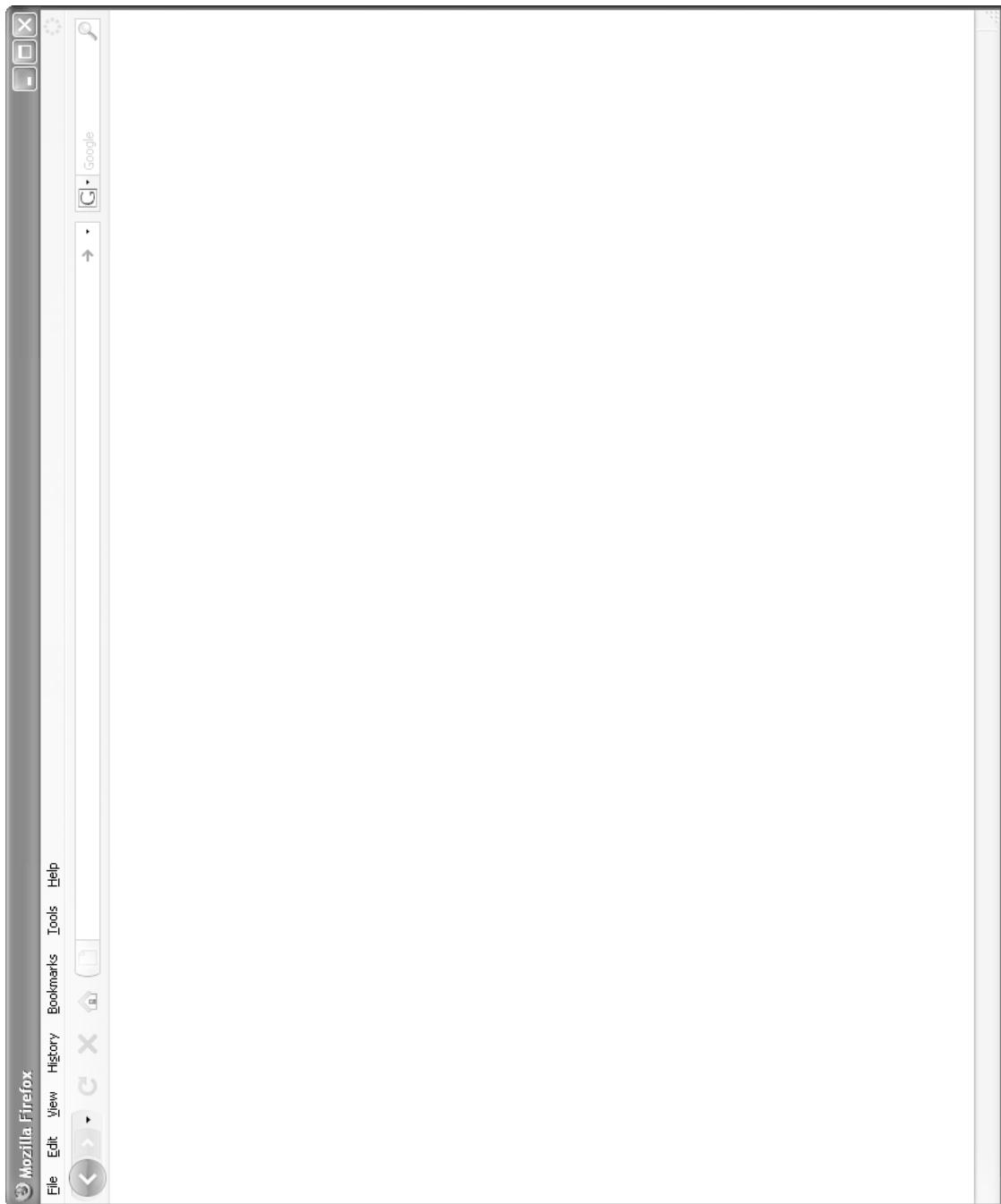
(b) ``

(c) ``

2. Consider the (valid) XHTML web page in Figure 1 (filename `page.html`) and (valid) CSS style sheet in Figure 2 (filename `style.css`). In the web browser window below, **draw what the web browser would display** after it has fetched `page.html` and `style.css` from the web server.

Of course, we aren't expecting a picture-perfect rendition (with fonts, colours, etc.), but you should include the details that can be reasonably drawn by hand. Note that the window has been rotated to give you was much space as possible.

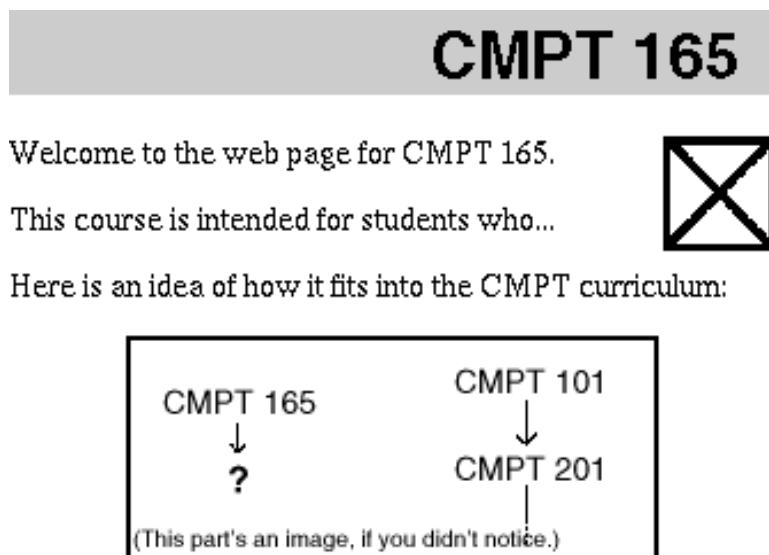
Hint: The entity `é` indicates an accented e: “é”.



3. Have a look at the information in the figure below.

Give **semantic XHTML** to represent the information in the figure as if you were turning it into a web page. You should give the XHTML that would be placed inside the `<body>...</body>`. You should give valid XHTML 1.0 (strict).

(You can feel free to make reasonable guesses about names of images, etc.)



Course Material

Here are some of the topics covered in CMPT 165:

- ⊕ HTML
- ⊕ CSS
- ⊕ graphics
- ⊕ design

...and you'll learn how to make a list with little happy faces like that.

[space to answer on next page]

[space to answer question 3]

<body>

</body>

4. Write a Python web script that asks the user for their name and then greets them. Suppose you already have an XHTML form with this input where the user is asked to enter their first name:

```
<input type="text" name="firstname" />
```

For most people, your program should be friendly. If the user enters “Waylon”, they should get an XHTML page with this greeting (wrapped in appropriate markup):

Hello, Waylon. Have a good day.

But, your program should be unfriendly to people named “Monty”. [If your name is Monty, nothing personal.]

I don't really like you, Monty.

Figure 3 contains the basic code needed to write a web script in Python. You have to fill in the code, replacing the comment “`your code goes here`”. **Give a replacement for the comment** that produces such a page as described above, replacing the user’s input as appropriate.

[The light dotted lines are there to help you make sure your code lines up vertically, since that is important in Python.]

5. Have a look at the advertisement below.

 **MINISTRY OF HEALTH SERVICES**
PharmaCare
BRITISH COLUMBIA **Pharmacist**

Enjoy excellent working conditions & an enviable island lifestyle in Victoria (www.city.victoria.bc.ca)

PharmaCare subsidizes eligible prescription drugs and designated medical supplies – protecting British Columbians from high drug costs and focusing on financial assistance to BC families who need it most, based on their net income.

Working regular hours in a flexible environment, you will participate in:

- reviews of (potentially) new/existing drug benefits in the development of drug benefit policy
- the daily operation and maintenance of PharmaCare's special authority process which encompasses providing clinical evaluations and adjudicating special authority requests from practitioners. You will also act as a communications contact for physicians, pharmacists and the public regarding clinical/non-clinical aspects of restricted benefits and general policies, etc.

Your credentials include:

- graduation from a recognized School of Pharmacy (with a minimum of a BSc in Pharmacy)
- current registration/licensure in good standing (or eligibility) as a Licensed Practicing Pharmacist in retail or hospital pharmacy
- experience in developing, interpreting and applying policy
- sound knowledge of pertinent pharmacy legislation governing drugs. PC competency in a Windows-based environment is preferred, as is experience with Internet-based medical literature searches.

A competitive salary commensurate with experience and a generous benefit package are offered. An eligibility list may be established. Prior to applying, please access <http://postings.gov.bc.ca/index.html> for a complete list of qualifications and duties. If you cannot access this link, call 250.952.1859. Please forward a résumé, citing competition #HL2004:16926, to: Medical & Pharmaceutical Services, Ministry of Health Services, 2-2, 1515 Blanshard Street, Victoria, BC V8W 3C8; fax: 250.952.1874. Closing date: on-going.

We thank all applicants for their interest; however, only individuals selected for assessment will be contacted.

M32288
www.bcpublicservice.ca/postings

- (a) Give four *good* things about the design and briefly justify these points using the four design principles.
-
-
-
-
-
-
-
-
-

- (b) Give three *bad* things about the design and briefly justify these points using the four design principles.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Dairy Products</title>
<link rel="stylesheet" href="style.css" type="text/css" />
</head><body>

<h1>Dairy Products</h1>
<h2>Milk</h2>
<p><a href="http://www.milk.org/">Milk</a> is the most common dairy
product. It is sold in several
forms. Some examples include <span class="examples">whole milk,
2% milk, and skim milk</span>.
</ul>

<h2>Cheese</h2>
<p>There are a lot of kinds of cheese too. My favourites are:</p>
<ol>
    <li>brie</li>
    <li>cheddar</li>
    <li>Comt&eacute;</li>
</ol>

<h2 id="more">More Info</h2>
<ul class="more">
    <li><a href="http://en.wikipedia.org/wiki/Milk">Milk in Wikipedia</a></li>
    <li><a href="http://www.milk.org/">Dairy Farmers of Ontario</a></li>
</ul>
</body>
</html>
```

Figure 1: XHTML page for question 2

```
h1 {
    border: thin solid #000;
    padding: 0.5em;
    text-align: center;
}
h2 {
    text-align: right;
}
h2#more {
    letter-spacing: 1em;
}
ol {
    list-style-type: upper-alpha;
    font-weight: bold;
}
.examples {
    text-transform: uppercase;
}
```

Figure 2: CSS file (style.css) for question 2

```
import cgi
form = cgi.FieldStorage()

print """Content-type: text/html

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Sample Python Script</title>
<link rel="stylesheet" href="style.css" type="text/css" />
</head>
<body>"""

# your code goes here.

print "</body></html>"
```

Figure 3: Outline of a Python web script that produces valid output

Solutions

Multiple choice: B, A, D, C, C, A.

Longer Answer:

1. (a) <http://www.sfu.ca/~userid/resume/experience.xhtml>
- (b) <http://www.sfu.ca/~userid/resume/style/resume.css>
- (c) <http://www.sfu.ca/~userid/me.jpg>
2. Here is an actual screenshot of the page in a browser:



Milk

Milk is the most common dairy product. It is sold in several forms. Some examples include WHOLE MILK, 2% MILK, AND SKIM MILK.

Cheese

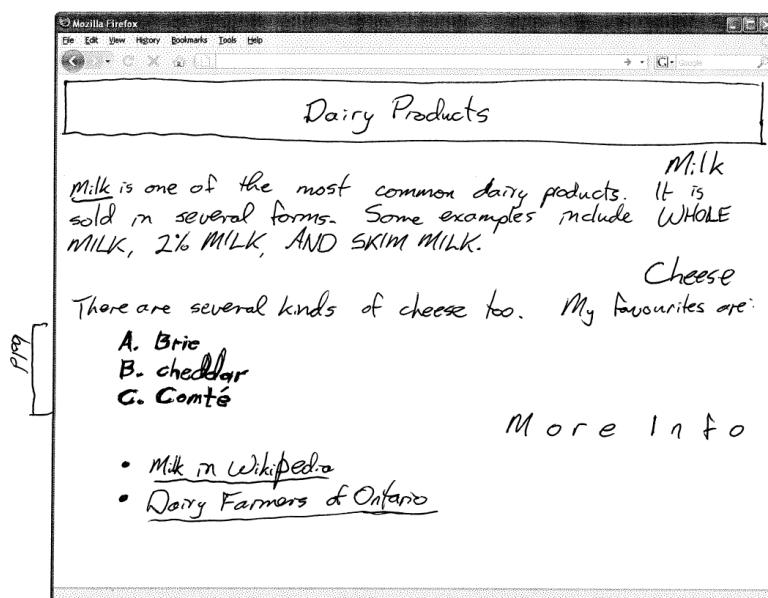
There are a lot of kinds of cheese too. My favourites are:

- A. brie
- B. cheddar
- C. Comté

M o r e I n f o

- [Milk in Wikipedia](#)
- [Dairy Farmers of Ontario](#)

But, here is my hand-drawn version which is more like what you would produce:



3. Of course, there are many ways your solution could vary, but here's mine:

```
<h1><abbr title="Computing Science">CMPT</abbr> 165</h1>
<p>
Welcome to the web page for CMPT 165.</p>
<p>This course is intended for students who...</p>
<p>Here is an idea of how it fits into the CMPT curriculum:</p>
<div class="figure">

</div>

<h2>Course Material</h2>
<p>Here are some of the topics covered in CMPT 165:</p>
<ul>
<li>HTML</li>
<li>CSS</li>
<li>graphics</li>
<li>design</li>
</ul>
<p>...and you'll learn how to make a list with little happy
faces like that.</p>
```

4. Here is a sample answer:

```
name = form.getvalue("firstname")

if name=="Monty":
    print "<p>I don't really like you, Monty.</p>"
else:
    print "<p>Hello, " + name + ". Have a good day.</p>"
```

5. Of course, there is a range of possible answers to this question. Here are some reasonable responses:

- (a)
 - alignment of main text at left & right
 - contrast between headings and body text
 - repetition of the same sans-serif font throughout
 - same bullet repeated throughout body text
- (b)
 - poor proximity—everything is spaced roughly the same amount
 - poor contrast between the job description and the stuff that's bold for some reason.
 - white-on-black text used only once at bottom—poor repetition.