

THE UNIVERSITY OF AUCKLAND

FIRST SEMESTER, 2007
COMPUTER SCIENCE
 Mastering Cyberspace: An Introduction to
 Practical Computing

TEST
(Time allowed: 60 MINUTES)

Surname:	
Forenames:	
Student ID number:	
Login name (UPI):	

INSTRUCTIONS:

- Attempt **ALL** questions - write your answers in the box provided
- Calculators are **NOT** permitted

Question	Mark
Digital, Hardware, Software	(/25)
Internet	(/30)
XHTML and CSS	(/25)
Presentation	(/10)
Applications	(/10)

TOTAL:

(/100)

Digital Information, Hardware and Software (25 marks)

1. What is a bit? How many bits are there in a byte?

(2 marks)

2. Storing information:

(i) How many numbers can be represented in 10 bits?

(2 marks)

(ii) Write down the relationship between KB, MB, and GB in terms of the decimal system.

(2 marks)

(iii) Which stores more information, 10 KB or 10 KiB?

(2 marks)

3. Given that a piece of hardware stored exactly 3 GiB of information, what component would it most likely be?

(2 marks)

4. Give two examples of application software.

(2 marks)

5. Give two examples of system software.

(2 marks)

6. Where is the CPU located? What does the CPU do?

(4 marks)

7. What is open source software?

(4 marks)

8. Write down *three* of the stages involved in large software design.

(3 marks)

Internet (30 marks)

9. State the name of a protocol used on the Internet and what the protocol is used for.

(i) State the name of a protocol.

(2 marks)

(ii) State what the protocol is used for.

(2 marks)

10. What does DNS stand for? What is the role of the DNS?

(4 marks)

11. Put the following historical events into chronological order (i.e. arrange the events in order with the earlier events listed before later events).

- WWW created
- ARPAnet created
- Sputnik launched
- Development of TCP/IP
- DNS created

1.

2.

3.

4.

5.

(5 marks)

12. Give an example of an asynchronous electronic communication system.

(2 marks)

13. Give an example of a synchronous electronic communication system.

(2 marks)

14. Name three protocols used by email systems to send or receive messages.

(3 marks)

15. Write down *two* differences between blogs and wikis.

(2 marks)

16. What is the difference between the Internet and the WWW?

(2 marks)

17. Who founded the WWW?

(2 marks)

18. What does URL stand for? What is a URL?

(2 marks)

19. What does WWW stand for?

(2 marks)

XHTML and CSS (25 marks)

20. What is the correct nesting of the following essential XHTML tags?

```
<body> </body> <title> </title> <html> </html> <head> </head>
```

(4 marks)

21. What is wrong with the following piece of XHTML?

```
<body>
<h1>Examples</h1>
<p>This is an <i>example of XHTML code used in a web page</p>
<h2> 2nd Example</h2>
<p>This is a second example of XHTML code</p>
</body>
```

(2 marks)

22. If a hypertext link was made to a web page called **test.html** that was stored in the **/courses/compsci111/** directory of the **www.cs.auckland.ac.nz** web server, what would be the correct href file location?

```
<a href="
                ">link to test</a>
```

(3 marks)

23. If a hypertext link was made from **test.html** in the previous question to a page called **answers.html** that was stored in the **/courses/compsci111/** directory of the **www.cs.auckland.ac.nz** web server what would be the correct *relative* href file location?

```
<a href="
                ">link to answers</a>
```

(2 marks)

24. Write the XHTML code for the following simple table.

Cell One	Cell Two
----------	----------

(6 marks)

25. Define an XHTML CSS style rule that makes all 1st level headings aligned centrally on the page and in italics.

(2 marks)

26. Extend the style rule above to apply to all 2nd level headings as well.

(2 marks)

27. Styles can be applied by **Browser default, Inline style, External style sheet and Internal style sheet** rules. Place these four items in order of decreasing priority (highest to lowest):

1.	Highest Priority
2.	
3.	
4.	Lowest Priority

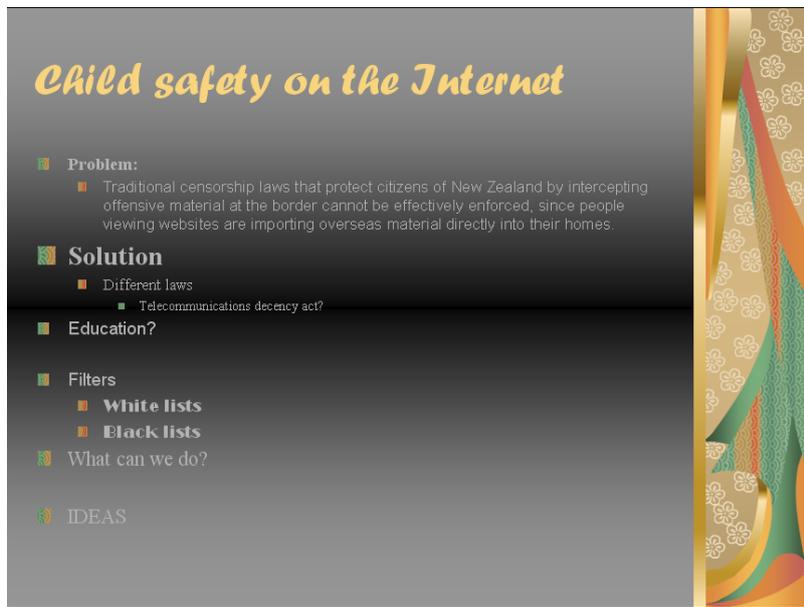
(4 marks)

Presentation (10 marks)

28. If you were asked to prepare a 5 minute PowerPoint presentation, as an approximate guide, what is the maximum number of slides your presentation should contain?

(2 marks)

29. The following PowerPoint slide contains a number of poor design decisions. State the three aspects of the slide design that you think are the worst.



(i)

(2 marks)

(ii)

(2 marks)

(iii)

(2 marks)

30. Explain why design should be kept simple for both PowerPoint presentations and web pages.

(2 marks)

Applications (10 marks)

31. What is the difference between a text editor and a word processor?

(2 marks)

32. What is postscript language and what is it used for?

(2 marks)

33. List two advantages of using user defined styles in MS-Word.

(2 marks)

34. What is the ASCII system used for?

(2 marks)

35. Given that the ASCII code for the letter 'N' is 78 and the ASCII code for the letter 'a' is 97, what are the codes required to represent the word "Mad"?

(2 marks)

ID Number

OVERFLOW PAGE

(If you have used this page, please indicate clearly under the relevant question that you have overflowed to this page)

ID Number

OVERFLOW PAGE

(If you have used this page, please indicate clearly under the relevant question that you have overflowed to this page)

ID Number

OVERFLOW PAGE

(If you have used this page, please indicate clearly under the relevant question that you have overflowed to this page)

ID Number

ROUGH WORKING

(You may detach this sheet from the test script and use it for working.
This sheet will not be marked)

ID Number

ROUGH WORKING

(You may detach this sheet from the test script and use it for working.
This sheet will not be marked)