THE UNIVERSITY OF AUCKLAND

SUMMER SEMESTER, 2009
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)

ID Number ....

Digital Information, Hardware and Software (25 marks)

1. What is the difference between the decimal number system and the binary number system?

(2 marks)

2. Storing information:

(i) How many different numbers can be represented in 3 bits?

(2 marks)

(ii) What decimal number is equivalent to the binary number 10011?

(2 marks)

(iii) What binary number is equivalent to the decimal number 15?

(2 marks)

3. What is RAID?

(2 marks)

ID Number ....

4. Name **two** pieces of hardware which can store at least 25 GB of information.

1)

2)

(2 marks)

5. What is shareware?

(3 marks)

6. What does Moore's Law state?

(3 marks)

7. What is a motherboard?

(3 marks)

8. Name **one** file extension (*for example*, .exe) for **each** of the following file formats:

graphics file extension:

sound file extension:

text file extension:

video file extension:

(4 marks)

ID Number ....

Internet (30 marks)

9. Name **four** common internet protocols.

1)

2)

3)

4)

(4 marks)

10. What does ISP stand for?   What does an ISP do?

(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).

   (a) WWW created
   (b) First successful transmission of digital data through telephone lines
   (c) Foundation of the Advanced Research Project Agency (ARPA)
   (d) Domain Name System created
   (e) First successful bi-directional transmission of clear speech

1) (*earliest*)

2)

3)

4)

5) (*latest*)

(5 marks)

ID Number ....

12. What is the difference between a **synchronous** electronic communication system and an **asynchronous** electronic communication system?   Give **one** example of each system.

(4 marks)

13. What is spam?

(2 marks)

14. What is a moderator in the context of an electronic forum?

(2 marks)

15. State **two** advantages and **two** disadvantages of wikis.

Advantages:
1)

2)

Disadvantages:
1)

2)

(4 marks)

ID Number ....

16. Given the URL: `http://www.scl.ec.auckland.ac.nz/content.html`, which letters describe the protocol, domain and file/resource?
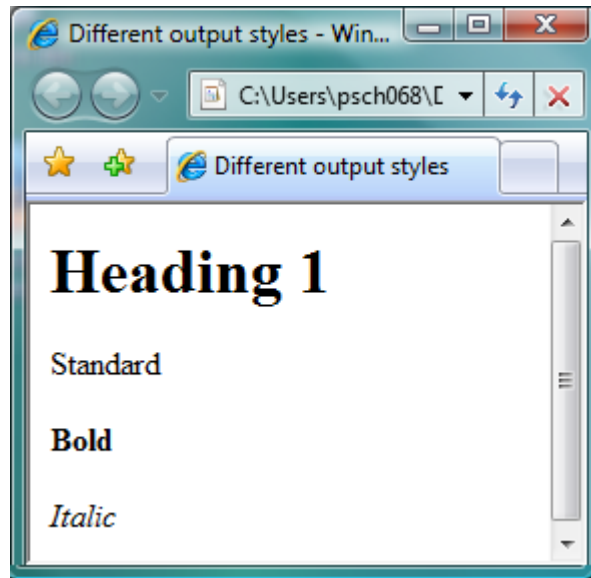
Protocol:

Domain:

File/Resource:

(3 marks)

17. What is a Proxy?

(2 marks)

ID Number ....

XHTML and CSS (25 marks)

18. The following screenshot shows a web page created using XHTML 1.0 and CSS. Complete the source code below that would result in the web page shown below. You **must** use the style rules provided in the internal style sheet.


```
<?xml version="1.0" encoding="utf-8">
<!DOCTYPE html PUBLIC
"-//W3C//DTD XHTML 1.0 Strict//EN"
http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd>

<html>
<head>
<title>Different output styles</title>
<style type="text/css">
.heavy {font-weight:bold;}
#important {font-style:italic;}
</style>
</head>
<body>




















</body>
</html>
```

(6 marks)

ID Number ....

19. In the following piece of XHTML code, circle each error and write the correction in the line immediately underneath the error.

```
<body>

<h2>Test</h3>

<p>This is an <br/> example of XHTML code used in a web page</p>

<lo>

<li> item 1

<li> item 2

</lo>

</body>
```

(5 marks)

20. Give **one** example of a fully specified URL and **one** example of a relative URL.

Fully Specified URL:

Relative URL:

(2 marks)

21. Associate each of the following three descriptors with the correct segment of the given style rule.

Descriptors: Selector, Property, Value
Style Rule: h3 { text-align: center; }

Selector:

Property:

Value:

(3 marks)

22. Define an XHTML CSS style rule that makes **all** 1st level headings aligned right on the page with a background color of gray.

(3 marks)

23. Suppose that in an **external style sheet** we have the style rule:

```
p
{
text-align: center;
color: blue;
font-style: italic;
text-decoration: underline;
background-color: light-blue;
}
```

while in the head of our XHTML document we have the following **internal style sheet**:

```
<style type = "text/css">
p
{
text-align: center;
font-weight: bold;
}
</style>
```

then the following XHTML code in the body of the document will produce a paragraph with what type of text?

```
<p style="color: green; text-align: right; ">
What a strange paragraph!</p>
```

(6 marks)

ID Number ....

Presentation (10 marks)

24. The content is less important than the presentation itself. Is the previous statement correct?
Explain your answer briefly.

(2 marks)

25. If you were asked to prepare a 10 minute PowerPoint presentation, as an approximate guide,
what is the maximum number of slides your presentation should contain?

(2 marks)

26. List **four** mistakes you can make when using PowerPoint.

1)

2)

3)

4)

(4 marks)

27. State **two** advantages of using PowerPoint rather than a Document Camera.

1)

2)

(2 marks)

ID Number ....

Applications (10 marks)

28. What is EndNote, and what is it used for?

(box)

(3 marks)

29. How many **bytes** are required for a 16 colour image 50 pixels wide and 10 pixels high? Show **all** your working.

(box)

(3 marks)

30. What does WYSIWYG stand for? Give an example of a WYSIWYG application.

(box)

(2 marks)

31. What is the ASCII system used for?

(box)

(2 marks)

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)