



University of the  
West of England

Computing, Engineering, Mathematical Sciences

Academic Year: 07/08  
Examination Period: Summer

Module Leader: Tony Drewry  
Module No: UFIE7W-20-1  
Title of Module: Introduction to the Web

Examination Date: May 12<sup>th</sup> 2008  
Examination Start time: 09:00  
Duration of Examination: 02 Hour(s) 00 Minutes

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**Instructions to Students:**

Answer FOUR questions. Answer 1 question in Section A and THREE questions from section B.

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**Materials supplied to the student will be:**

Number of Examination Booklets (+ any continuation booklets as required) per Examination	1
Number of Pre-printed OMR (Multiple Choice Answer Sheet)	0
Number of sheets of Graph Paper size G3 (Normal)	0

**Additional Instruction to Invigilators:**

Calculators may be used subject to University regulations	Yes
Students allowed to keep Examination Question Paper	Yes
Material supplied by student allowed : please specify	No
Additional Specialised Material:  <i>None.</i>	

Treasury tags & adhesive triangles will be supplied as standard.

**SECTION A**

Answer **QUESTION 1** in this section

**QUESTION 1**

- (a) Study the following HTML code extract:  
(Line numbers have been included for reference)

# Code extract

```
1. <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
   Transitional//EN"
2. "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3. <html>
4. <head> <title>First Page</title>
5. <link rel="stylesheet" type="text/css" href="mystyle.css"/>
6. </head> <body>
7. <h2> <b> First </b> </h2>
8. <form name="pwd" action="s1.php" method="POST">
9. Your name: <input type="text" id="name" name="name">
10. <p> Your password:
    <input type="password" id="pwd" name="pwd" size="10">
11. <input type="hidden" name="source" value="uwe03">
12. </p> <input type="submit" value="Enter"> </form>
```

# End code extract

Provide detailed notes explaining each line of the above code.

[18 marks]

- (b) Study the extract from a style sheet.  
(Numbers have been included for reference)

# Code extract

```
1. a:link      {color:green}
2. a:visited   {color:yellow}
3. a:hover     {color:black}
4. a#English_nav, a#French_nav, a#German_nav { color: navy; }
5. body#English a#English_nav, body#French a#French_nav,
   body#German a#German_nav {display: none; }
```

# End code extract

Explain the effect that each of the above style rules should have on elements in pages that are linked to the style sheet

[7 marks]

[Total 25 marks]

**SECTION B**

Answer **THREE QUESTIONS** in this Section

**QUESTION 2**

- (a) In Web-page design, why is it generally preferable to use a GIF or JPG format for still images rather than BMP format? When and why would you use a GIF rather than a JPG?  
[7 marks]
- (b) Why would a web designer choose to use a PNG format for still pictures rather than GIF or JPG?  
[3 marks]
- (c) In respect of images in Web pages, what is 'interlacing'? Is it better to use interlaced images or non-interlaced images?  
[5 marks]
- (d) Providing code examples, explain:  
i. what 'ALT text' is.  
ii. why and where a Web designer should use 'ALT text'.  
[10 marks]

**QUESTION 3**

- (a) What is CSS?  
[4 marks]
- (b) Describe and differentiate between 'external' style sheets, 'internal' styles and 'embedded' styles. In your answer provide examples and explain how a web browser deals with multiple, possibly conflicting styles  
[12 marks]
- (c) Why do Web designers use style sheets?  
[9 marks]

**QUESTION 4**

- (a) Explain what a 'communication protocol' is, illustrating your answer with a description of the TCP/IP 'family' of protocols.  
[15 marks]
- (b) With reference to the various protocols and Internet processes involved, explain how email works.  
[10 marks]

### QUESTION 5

(a) What is a scripting language?

[3 marks]

(b) Providing code examples, explain what a JavaScript script is and how scripts are applied within Web pages.

(You may refer to the code extract below as one of your examples.)

[12 marks]

(c) Study the following code extract:

# Code extract

```
1. function validate_required(field,alerttxt) {  
2. with (field) {  
3. if (value==null||value=="") {alert(alerttxt);return false;}  
4. else {return true} } }  
5. function validate_form(thisform) {  
6. with (thisform) {  
7. if (validate_required(email,"Email must be filled  
   out!")==false)  
8. {email.focus();return false;} } }
```

# End code extract

Explaining each line, describe what the above script does.

[10 marks]

### QUESTION 6

(a) Explain the terms 'client' and 'server' illustrating your answer with an e-commerce example.

[7 marks]

(b) Explain why you would sometimes validate data entry on the client, and sometimes on the server.

[8 marks]

(c) How and why would you validate HTML code?

[10 marks]

**End of Exam**