



Midterm Cover Sheet

Second Semester: 1435-1436 / 2014-2015

Course Instructor: _____	Exam Date: _____
Course Title: <u>Web Technologies</u>	Course Code: <u>IT230</u>
Exam Duration: <u>1 Hour</u>	Number of Pages: _____ (including cover page)

Exam Guidelines

- Mobile phones are not permitted.
- Calculators are permitted.

Marking Scheme

Questions	Score
Q1	/ 6
Q2	/ 6
Q3	/ 14
Q4	/ 12
Q5	/ 14
Exam Score / 50	/ 50
Final Score / 25	/ 25

Student Name: _____	Student ID: _____
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Question 1:

(6 Marks)

For each of the following multiple choice questions, choose one correct answer.

- 1- Which of the following is a server-side programming technology used to build web pages?
 - a) HTML
 - b) PHP
 - c) CSS
 - d) JavaScript

 - 2- The ? in the URL `www.google.com/search?q=deitel` separates the _____ from the rest of the URL in a request.
 - a) URI
 - b) Post request
 - c) Query string
 - d) Cache

 - 3- An HTML table contains rows delimited by _____ elements, which contain cells delimited by _____ elements.
 - a) tr, td
 - b) tr, tr
 - c) table, td
 - d) td, tr

 - 4- An example of the proper format for inline styles is:
 - a) `<p style = "font-size = 20pt">`
 - b) `<p font-style = "20pt">`
 - c) `<p style: "font-size = 20pt">`
 - d) `<p style = "font-size: 20pt">`

 - 5- In the following line the word "document" is _____ that resides in the computer's memory.
`document.writeln("Hello World");`
 - a) Attribute
 - b) Behavior
 - c) Object
 - d) Method
-

6- Which of the following is the proper way to dynamically access the background color?

- a) document.body.style.BackgroundColor
- b) document.body.attributes.BackgroundColor
- c) document.body.style.backgroundColor
- d) document.body.style.background-color

Question 2:

(6 Marks)

For each of the following statements, answer with **True** or **False**.

Type only **True** or **False** *not T or F*

1.	JavaScript code did not need to be compiled.	T
2	In JavaScript, type of a variable is dynamic which depends on the type of data it contains.	T
3	Text put between the <head></head> tags appears in the browser's title bar (i.e., the dark bar at the top of the browser window)	F
4	A cache is a local copy of information obtained from some other source.	T
5	In CSS, colors can be specified either by writing color names or their RGB values	T
6	The method (clearInterval) is a method of windows object that stops repetitive calls	T
		T

Question 3:

(14 Marks)

Answer the following questions **briefly**.

1. List the advantages and disadvantages of using client caching.

[3 Marks]

Cache advantages:

- a. (Much) faster than HTTP request/response
- b. Less network traffic
- c. Less load on server

Cache disadvantage:

Cached copy of resource may be invalid

2 Marks for advantages and 1 Mark for disadvantages

2. Discuss the different ways to integrate a CSS into a Web page?

[3 Marks]

1. **Inline:** HTML elements may have CSS applied to them via the STYLE attribute.
2. **Embedded:** By placing the code in a STYLE element within the HEAD element.
3. **Linked/ Imported:** Place the CSS in an external file and link it via a link element.

Each point one mark

3. What is the difference between an ID selector and CLASS selector in CSS string selectors? [4 Marks]

An ID selector identifies and sets style to only one occurrence of an element, while CLASS can be attached to any number of elements

Each point two marks

4. Answer the following based on this HTTP Request [4 Marks]

```
Connect to 192.168.1.200 on port 80. Ok
GET / HTTP / 1.1
Host: www.test.edu
User-Agent: Mozilla/5.0 (Windows; U; en-US; .....
Accept-Encoding: gzip
Accept: text/xml,text/html;q=0.9, text/plain;q=0.8,
image/jpeg, image/gif;q=0.2, */*;q=0.1
```

- What is the field User-Agent is used for on HTTP-Request?
- Explain the values of the Accept field in the above sample HTTP-Request.
- Suppose that the server respond successfully to this request, type the status line in the HTTP response from the server.

a) User-Agent is used to specify the client web browser and operating system [1 Mark]

b) According to the Accept header field the browser in this example prefers text/xml (quality value 0.9) over image/jpeg (quality value 0.2). A final common header field feature is the use of the * character in a header field value as a wildcard character. For instance, the string */* in the Accept header field value represents all possible MIME types. [2 Marks]

c) HTTP/1.1 200 OK [1 Mark]

Question 4:

(10 Marks)

1. Consider the following script. What is wrong with the following code? [2 Marks]

```
<script type = "text/javascript">  
    var firstNumber, secondNumber;  
    thirdNumber;  
    firstNumber = window.prompt("Enter an integer", "0");  
    secondNumber = window.prompt(Enter an integer, "0");  
    thirdNumber = firstNumber + secondNumber;  
</script>
```

- ✓ The words Enter an integer in line 5 should be in quotes.
- ✓ The word var must be placed before thirdNumber in line 3.

Each point one mark

2. Identify errors from the following code snippet.

[3 Marks]

```
<head>  
<title>InternalStyleSheet.html</title>  
<style type="text-css">  
h1, h2 { background:color-aqua }  
</style>
```

Correct Code:

```
<head>  
<title>InternalStyleSheet.html</title>  
<style type="text/css">  
h1, h2 { background-color:aqua }  
</style>  
</head> {missing in the above code}
```

Each point one mark

3. What does the following script do?

[2 Marks]

```
<script>
var value = 0;
function startTimer()
{
    window.setInterval( "updateTime()", 1000 );
}
function updateTime()
{
    value++;
    pText.innerText = value;
}
</script>
```

It counts the number of seconds elapsed viewing the page

4. How many alert dialogs will the following Javascript generate, and what will be displayed in each of them?

[3 Marks]

```
<script>
var x = "10";
function f(){
    var x = "4";
    alert(this.x);
    function g(){
        alert(x);
    }
    g();
}
f();
</script>
```

There will be 2 alert dialogs. The first will display "10", and the second will display "4".

Question 5:

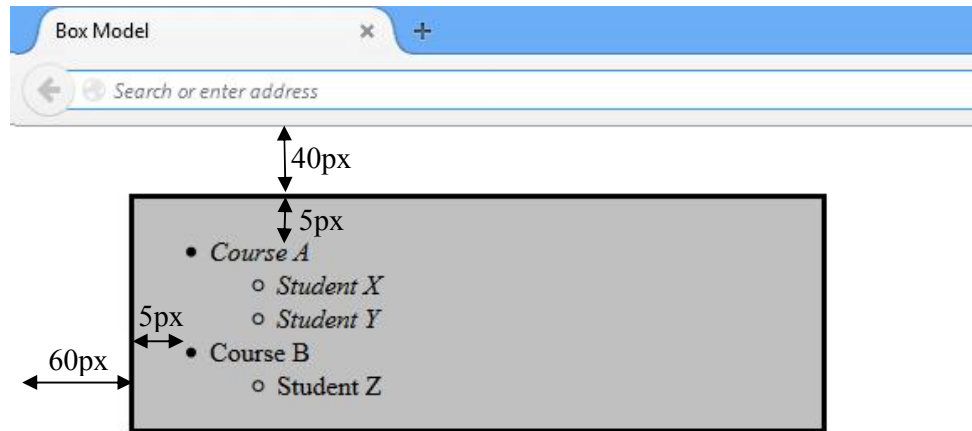
(14 Marks)

1. Write the HTML code that gives the following output:

Note:

[9 Marks]

- Use CSS to specify the style of the page to be exact as the figure
- You should make use of Box Model with the specified spaces in the figure, 40px, 5px from top and 60px, 5px from left.



```

<head>
<title>Box Model</title>
<style>
#div1 {
border-style:solid;
border-width:3px;
margin-left:60px;
margin-top:40px;
padding-left:5px;
padding-top:5px;
width:30%;
background-color:silver;
}
</style>
</head>

```

1 mark

1 mark

1 mark

1 mark

2 marks

2 marks for outer list

```

<body>
<div id="div1">
<ul>
<li style="font-style:italic">Course A
<ul>
<li>Student X</li>
<li>Student Y</li>
</ul>
</li>

```

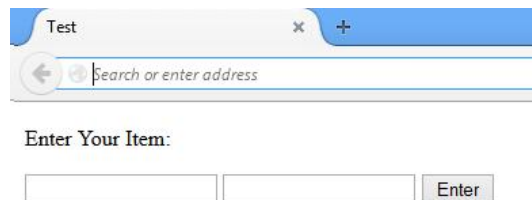



```
1mark { <li>Course B
      <ul>
      <li>Student Z</li>
      </ul>
      </li>
      </ul>
      </div>
      </body>
      </html>
```

2. Complete the following JavaScript function. Therefore, when you click on the button “Enter” the function “addnums” that takes two number from the two text inputs, and then display the sum of them in the popup window. [5 Marks]

You have to check if the user enter a number from 0 to 9 or not using regular expression, if not display a message at the result box state that the inputs are not numbers.

Hint: *parseInt(x)* convert *x* to number.



```
<body>
<div >
  <p>Enter Your Item:</p>
  <input id="num1" type="text" />
  <input id="num2" type="text" />
  <button type="button" onclick="addnums()" >Enter</button>
</div>
<script>
function addnums()
{
```

```

1mark { var elt = document.getElementById("num1");
1mark { var num1 = elt.value;
1mark ← { var elt = document.getElementById("num2");
           { var num2 = elt.value;
             if (/^\d*$/.test(num1) && /^\d*$/.test(num2) )
               {
                 1mark { var sum = parseInt(num1) + parseInt(num2);
                       { window.alert("Sum : " + sum)
                         }
                       }
                 }
               else
                 {
                   1mark { window.alert("You didn't input numbers");
                         }
                 }
             }
           }
         }
       }
     }
  }
} </script> </body>
```

With our best wishes,