44-563 Developing Web Applications and Services Fall 2014

Exam 2 Version B

Each question is worth 3 points.

1. XML Schemas are given in what format?
   1. XML
   2. DTD
   3. HTML
   4. HTML5
2. An XML Schema contains the following code:

<xs:simpleType name="myID">

<xs:restriction base="xs:string">

<xs:pattern value="[0-9]{9}"/>

</xs:restriction>

</xs:simpleType>

Which of the following are valid for an element of type myID?

* 1. 12-456789
  2. 123456789
  3. Both A and B
  4. Neither A nor B

1. jQuery usually executes on a \_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Client
   2. Server
2. Assume a web page contains this HTML:  
    <input type="text" id="name">  
   jQuery code to assign the value the user entered in this input box to the variable userName is  
    var userName = $("#name").\_\_\_\_\_\_\_\_\_
   1. val
   2. value
   3. val()
   4. value()
3. XML was designed to \_\_\_\_\_\_\_\_\_\_\_\_ data effectively.
   1. transfer
   2. delete
   3. display
   4. modify
4. Servlets can be written in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. JavaScript
   2. Java
   3. Both Java and JavaScript
   4. Neither Java nor JavaScript
5. A single XML file can contain multiple namespace definitions.
   1. True
   2. False
6. The primary role of a DTD is to avoid XML naming collisions.
   1. True
   2. False
7. XML can be parsed using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Java
   2. JavaScript
   3. Both Java and JavaScript
   4. Neither Java nor JavaScript
8. To use jQuery, you must include a <script> tag in html.
   1. True
   2. False
9. Servlets execute on a \_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Client
   2. Server
   3. Both server and client
10. Consider the following code: $('#myImage').click(grabData);

#myImage is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. action
  2. callback function
  3. selector

1. Consider the following html and accompanying snippet of servlet code:

<form action="dateServlet">

<h2>Please tell me the date and time.</h2>

<input type="submit" value="Submit Query">

</form>

@WebServlet(name = "A Date Servlet", urlPatterns =

{

"\_\_\_\_\_\_\_\_\_\_\_\_\_"

})

How many parameters are being sent to the servlet?

* 1. 0
  2. 1
  3. 2
  4. Unable to determine from code snippet

1. A servlet can add session-specific attributes specific to an HttpSession object through the \_\_\_\_\_\_\_\_\_\_\_\_ method.
   1. newAttribute
   2. setAttribute
   3. add
   4. new
2. Parameters for HTTP GET operations are sent to servlets via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. JSON
   2. the URL
   3. XML
   4. Netbeans conversion
3. Consider the following code:

function nameCourses() {

$.get("courses?subject=" + $('#subject').val(), findCourses);

}

$(document).ready(

function() {

$('#getCourses').click(nameCourses);

}

);

What is the name of the callback function?

* 1. findCourses
  2. nameCourses
  3. document
  4. None of the above

1. AJAX uses which technology for data transfer?
   1. JSON
   2. XML
   3. Both JSON and XML
   4. Neither JSON nor XML
2. Consider the following html and accompanying snippet of servlet code:

<form action="dateServlet">

<h2>Please tell me the date and time.</h2>

<input type="submit" value="Submit Query">

</form>

@WebServlet(name = "A Date Servlet", urlPatterns =

{

"\_\_\_\_\_\_\_\_\_\_\_\_\_"

})

What fills in the blank under @WebServlet?

* 1. WebServlet
  2. /dateServlet
  3. Submit Query
  4. /submit

1. Consider the following code:

function getMessage() {

request = new XMLHttpRequest();

request.open("GET", "MessageServlet", true); request.onreadystatechange = displayMessage;

request.send(null);

}

window.onload = function() {

document.getElementById("wakeupserver").onclick = getMessage;

}

What is the name of the callback function?

* 1. getMessage
  2. onload
  3. getElementById
  4. None of the above

1. HTTP stores the state of connections.
   1. True
   2. False
2. The following code indicates that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

if (request.readyState === 4 && request.status === 200) {

* 1. the request is finished and the response is ready
  2. the status is ‘Ok’
  3. Both A and B
  4. Neither A nor B

1. Arrays can be used in JSON.
   1. True
   2. False
2. JSON is an alternative to XML.
   1. True
   2. False
3. Assume we have defined an XML language using the DTD below.  
    <?xml version="1.0" encoding="UTF-8"?>  
    <!ELEMENT hi (hello+, bye\*, greetings)>  
    <!ELEMENT hello (#PCDATA)>  
    <!ELEMENT bye (#CDATA)>  
    <!ELEMENT greetings (#PCDATA)>  
   The element hello can occur only one time.
   1. True
   2. False
4. AJAX transactions are typically handled asynchronously.
   1. True
   2. False
5. In order to use jQuery, you must include at least one image or button in your HTML.
   1. True
   2. False
6. Java libraries such as the following can be used in servlets.

import java.io.IOException;

import java.io.PrintWriter;

* 1. True
  2. False

1. DTDs are constructed in XML format.
   1. True
   2. False
2. Consider the code snippet below.

<body>

<input type="button" id="doThis" value="buttonButton!">

</body>

The accompanying button click event handler is written using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. jQuery
  2. JavaScript without jQuery
  3. Not enough information to determine

1. Assume that request has been instantiated in the following way:

request = new XMLHttpRequest();

Identify the code needed to display the servlet response in the HTML document location with id=message.

* 1. document.getElementById("message").innerHTML = request;
  2. document.getElementById("message").innerHTML = request.responseText;
  3. $.getElementById("message").innerHTML = request.responseText.toString();
  4. document.message = request.toString();

1. Assume a button in a web page has id="hello". To assign the JavaScript function handleClick() as the event-handler for clicking the button, we write  
   document.getElementById("hello").\_\_\_\_\_\_\_\_ = handleClick;
   1. click
   2. onclick
   3. clicked
2. Glassfish is an example of an Application Server.
   1. True
   2. False
3. Consider the following code snippet.

function calculate() {

var radius = parseFloat($('#radius').val());

$('#circumference').val((2.0 \* Math.PI \* radius).toFixed(2));

$('#area').val((Math.PI \* radius \* radius).toFixed(2));

}

$(document).ready(function() {

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

});

What code should be in the underlined portion if we want to execute the calculate function when the button with id=”radius” is clicked.

* 1. #radius.getElementById.click(calculate);
  2. $('#radius').click(calculate);
  3. $('#radius').onclick().calculate;
  4. onclick(radius).calculate();