44-563 Developing Web Applications and Services Fall 2014

Exam 2 Version F

Each question is worth 3 points.

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. 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. 12V456789
  2. 123456789
  3. Both A and B

1. 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. XML Schemas are given in what format?
   1. XML
   2. DTD
   3. HTML
   4. HTML5
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. val()
   3. value
   4. value()
3. jQuery usually executes on a \_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Client
   2. Server
4. The primary role of a DTD is to avoid XML naming collisions.
   1. True
   2. False
5. To use jQuery, you must include a <script> tag in html.
   1. True
   2. False
6. 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 single XML file can contain multiple namespace definitions.
   1. True
   2. False
2. Servlets execute on a \_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Client
   2. Server
   3. Both server and client
3. Servlets can be written in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. JavaScript
   2. Java
   3. Both Java and JavaScript
   4. Neither Java nor JavaScript
4. 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. /dateServlet
  2. WebServlet
  3. Submit Query
  4. /submit

1. XML was designed to \_\_\_\_\_\_\_\_\_\_\_\_ data effectively.
   1. delete
   2. display
   3. modify
   4. transfer
2. XML can be parsed using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. Java
   2. JavaScript
   3. Both Java and JavaScript
   4. Neither Java nor JavaScript
3. AJAX transactions are typically handled asynchronously.
   1. True
   2. False
4. 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. nameCourses
  2. document
  3. findCourses
  4. None of the above

1. Consider the following code: $('#myImage').click(grabData);

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

* 1. action
  2. callback function
  3. selector

1. A servlet can add session-specific attributes specific to an HttpSession object through the \_\_\_\_\_\_\_\_\_\_\_\_ method.
   1. newAttribute
   2. add
   3. new
   4. setAttribute
2. Parameters for HTTP GET operations are sent to servlets via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. the URL
   2. JSON
   3. XML
   4. Netbeans conversion
3. Arrays can be used in JSON.
   1. True
   2. False
4. AJAX uses which technology for data transfer?
   1. JSON
   2. XML
   3. Both JSON and XML
   4. Neither JSON nor XML
5. HTTP stores the state of connections.
   1. True
   2. False
6. JSON is an alternative to XML.
   1. True
   2. False
7. 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
8. 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. DTDs are constructed in XML format.
   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').click(calculate);
  2. #radius.getElementById.click(calculate);
  3. $('#radius').onclick().calculate;
  4. onclick(radius).calculate();

1. In order to use jQuery, you must include at least one image or button in your HTML.
   1. True
   2. False
2. Java libraries such as the following can be used in servlets.

import java.io.IOException;

import java.io.PrintWriter;

* 1. True
  2. False

1. 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. Glassfish is an example of an Application Server.
   1. True
   2. False