44-563 Developing Web Applications and Services Fall 2013

Exam 2 Version 2

Each question is worth 4 points.

1. jQuery is a JavaScript library.

A. True

B. False

2. Assume a web page contains this HTML:

<button id="hello">Greetings</button>

Write jQuery code to change the label on the button to "Goodbye".

$("#hello").html("Goodbye");

3. Assume a web page contains this HTML:

<input type="text" id="user">

Write jQuery code to assign the value the user entered in this input box to the variable username.

var username = $("#user").val();

4. Assume a web page contains this HTML:

<p id="hi">This is a paragraph.</p>

Write jQuery code to remove this element from the web page.

$("#hi").remove();

5. XML is a Microsoft product and can only be used in a Windows environment.

A. True

B. False

6. XML uses namespaces to avoid

A. Extra white space in documents

B. Spelling errors in tag names

C. Naming collisions in documents

7. Assume we have defined an XML language using the DTD below.

<?xml version="1.0" encoding="UTF-8"?>

<!ELEMENT a (b, c+, d\*)>

<!ELEMENT b (#PCDATA)>

<!ELEMENT c (#PCDATA)>

<!ELEMENT d (#PCDATA)>

The element c can occur twice.

A. True

B. False

8. Assume an XML schema contains this code:

<xs:sequence>

<xs:element name="s" type="xs:string" maxOccurs="unbounded"/>

</xs:sequence>

The element s can occur three times.

A. True

B. False

9. Assume an XML schema contains this code:

<xs:sequence>

<xs:element name="s" type="xs:string" minOccurs="0"/>

</xs:sequence>

The element s can occur two times.

A. True

B. False

10. Assume an XML schema contains this code:

<xs:simpleType name="count">

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

<xs:maxInclusive value="6"/>

</xs:restriction>

</xs:simpleType>

The minimum legal value of an element of type count is

A. 0

B. 1

C. 5

D. 6

11. Assume an XML schema contains this code:

<xs:simpleType name="T">

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

<xs:pattern value="[2-5]{3}(\d{2})?"/>

</xs:restriction>

</xs:simpleType>

Circle all of the values below that are legal values for an element of type T.

A. 463

B. 23456

C. 45678

D. 87654

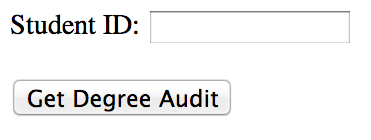
E. 765

12. Servlet code is executed

A. By a browser on the client side

B. By Glassfish on the server side

13. The web page shown below contains a form. When the button is clicked, the servlet degAudit handles the request.



The code for the form is shown below. Fill in the blanks to complete the code.

<form \_\_\_action\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_="degAudit>

Student ID:

<input type="text" \_\_\_\_name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_="studentId">

<br><br>

<input type="\_\_\_\_\_submit\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_" value="Get Degree Audit">

</form>

14. Write servlet code that assigns the value of the request parameter named studentID to the string variable sid.

String sid = request.getParameter("studentId");

15. Sessions are necessary because

A. HTTP is a stateless protocol.

B. The GET operation does not allow the use of request parameters.

16. Assume a web application has created an HttpSession object named session. Complete the code below to save a username "Leonard" so that it can be accessed thoughout the session.

session.setAttribute\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_("username", "Leonard");

17. In a web application that uses AJAX, the input components in the user interface must be inside a <form> tag.

A. True

B. False

18. When an AJAX response is received on the client side, it is handled by a JavaScript function called the \_\_\_\_\_callback\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ function.

19. In AJAX, the request object is of type

A. Request

B. HttpRequest

C. XMLHttpRequest

20. Assume we are returning an AJAX response that is written in XML. In the servlet, we set the response type as follows (fill in the blank):

response.setContentType("text/xml\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;charset=UTF-8");

21. Assume we are returning an AJAX response that is written in XML. On the client side, we obtain the message that was returned using the expression (fill in the blank)

request.responseXML\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. The following jQuery code initiates an AJAX request.

$.get("hello", goodbye);

In this code, goodbye is

A. a request parameter

B. the URL of a servlet

C. the callback function

23. Consider the following JavaScript code:

var book = { "title": "Cryptonomicon", "author": "Stephenson" };

Complete the following statement that assigns the author of the book to the variable bookAuthor. Do NOT use the string "Stephenson" in your answer.

var bookAuthor = book.author;

24. To iterate over an array, we can use the jQuery function

A. for

B. each

C. foreach

25. Assume the Java variable gen of type JsonGenerator. To write a name-value pair for an attribute of a JSON object, we call gen.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_().

A. write

B. attribute

C. writeAttribute