44-563 Developing Web Applications and Services Fall 2013

Exam 2 Version 1

Each question is worth 4 points.

1. jQuery is a collection of Java methods.

A. True

B. False

2. Assume a web page contains this HTML:

<p id="hello"></p>

Write jQuery code to set the content of the paragraph to the string "Greetings".

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

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 hide this element.

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

5. XML is case-sensitive.

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. Each XML namespace has a unique prefix that must always be used in all documents.

A. True

B. False

8. 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 root element is

A. a

B. b

C. c

D. d

9. 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 b may be omitted.

A. True

B. False

10. Assume an XML schema contains this code:

<xs:sequence>

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

</xs:sequence>

The element s can be omitted.

A. True

B. False

11. Assume an XML schema contains this code:

<xs:simpleType name="T">

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

<xs:pattern value="[2-6]{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

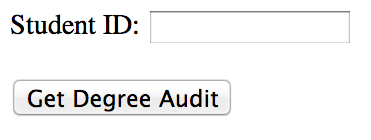
E. 765

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. The application server sends a session ID to the client using a

A. request parameter

B. submit parameter

C. cookie

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. The AJAX response has been received from the server when request.readyState == \_\_\_4\_\_\_\_\_\_\_ and request.status == \_\_200\_\_\_\_\_\_\_\_.

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

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

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

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

request.responseText\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. The following jQuery code initiates an AJAX request.

$.get("hello", goodbye);

In this code, "hello" 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 title of the book to the variable bookTitle. Do NOT use the string "Cryptonomicon" in your answer.

var bookTitle = book.title;

24. Suppose we use the jQuery function $.each() to iterate over an array. The current item in the array is referred to using the name

A. index

B. this

C. element

25. Assume the Java variable gen of type JsonGenerator. To start writing a JSON object, we call gen.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_().

A. write

B. start

C. writeStartObject