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Exam Code: 1Z0-899

Exam Name: Java EE 6 Web Component Developer Certified Expert Exam



1z0-899

QUESTION 1

Given the element from the web application deployment descriptor:

```
<jsp property group>
<url pattern>/main/page1.jsp</url pattern>
<scripting invalid>true</scripting invalid>
</jsp--property--group>
```

And given that /main/page1.jsp contains:

```
<% int i = 12; %>
<b> <%= i %> </b>
```

What is the result?

- A.
- B. 12
- C. The JSP fails to execute.
- D. <% int i = 12 %>
 <%= i %> < b>

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

A web application allows the HTML title banner to be set using a context initialization parameter called titlestr.

Which two properly set the title in the scenario? (Choose two)

- A. <title> \$ {titlestr} </title>
- B. <title> \$ {initparam.titlestr}</title>
- C. <title> \$ {param [0]. titlestr} </title>
- D. <title> \$ {paramValues.titleStr} </title>
- E. <title> \$ {iParam ["titleStr"]} </title>
- F. <title> \$ {servletParams.titleStr} </title>
- G. <title> \$ {request.get ("titleStr")} </title>

Correct Answer: BE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 3

Given:

- 11. <%
- 12. request.setAttribute ("vals", new String[] {"1", "2", "3", "4"});
- 13. request.setAttribute ("index", "2");
- 14. %>

15. <% -- insert code here -- %>

Which three EL expressions, inserted at line 15, are valid and evaluate to "3"? (Choose three)

- A. \${vals.2}
- B. \${vals ["2"]} }
- C. \${vals.index}
- D. \${vals[index]} }
- E. \${vals} [index]
- F. \${vals. (vals.index) }
- G. \${vals [vals[index-1]] }

Correct Answer: BDG

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4

Given:

```
11. <% java.util.Map map = new java.util.HashMap();
12.     request.setAttribute("map", map);
13.     map.put("a", "b");
14.     map.put("b", "c");
15.     map.put("c", "d"); %>
16. <%-- insert code here --%>
```

Which three EL expressions, inserted at line 16, are valid and evaluate to "d"? (Choose three)

- A. \${map.c}
- B. \${map.[c]}
- C. \${map["c"]}
- D. \${map.map.b}
- E. \${map.[map.b]}
- F. \${map. (map.b)}

Correct Answer: ACE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 5

You are building a dating service web site. Part of the form to submit a client's profile is a group of radio buttons for the person's hobbies:

- 20. <input type = `radio' name = `hobbyEnum' value = `HIKING'> Hiking

- 21. <input type = `radio' name = `hobbyEnum' value = `SKING'> Sking

- 22. <input type = `radio' name = `hobbyEnum' value = `SCUBA'> SCUBA

- 23. <! -- and more options -- >>

After the user submits this form, a confirmation screen is displayed with these hobbies listed. Assume that an

application-scoped hobbies, holds a map between the hobby enumerated type and the display name.

Which EL code snippet will display Nth element of the user's selected hobbies?

- A. `${hobbies [hobbyEnum[N]}`
- B. `${hobbies [paramValues.hobbyEnum[N]]}`
- C. `${hobbies [paramValues @ `hobbyEnum' @N]`
- D. `${hobbies.get(paramValues.hobbyEnum[N]) }`
- E. `${hobbies [paramValues.hobbyEnum.get(N)] }`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 6

Given:

- 1. `<% int[] nums = {42,420,4200};`
- 2. `request.setAttribute("foo", nums); %>`
- 3. `${5 + 3 lt 6}`
- 4. `S(requestScope["foo"][0] ne 10 div 0>`
- 5. `${10 div 0}`

What is the result?

- A. true true
- B. false true
- C. false true 0
- D. true true Infinity
- E. false true Infinity
- F. An exception is thrown
- G. Compilation or translation fails

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7

You are building a web application with a scheduling component. On the JSP, you need to show the current date, the date of the previous week, and the date of the next week.

To help you present this information, you have created the following EL functions in the `d' namespace:

- Name : curDate; signature: java.util.utilDate CurrentDate()
- Name : curData; signature: java.util.utilDate addweek (java.util.Date, int)
- Name: dateString; signature: java.util.String getDataString (jave.util.Data)

Which EL code snippet will generate the string for the previous week?

- A. `${d:dateString(affWeek(curDate(), -1)) }`
- B. `${d:dateString [addWeek[curDate[], -]] }`

- C. `#{d:dateTimeString [d:addWeek[d:curDate[], - 1]] }`
- D. `#{d:dateTimeString (d:addWeek(d:curDate(), -1)) }`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 8

Given a header in an HTTP request:

X-Retries: 4

A Which two retrieve the value of the header from a given `HttpServletRequest` request? (Choose two)

- A. `request.getHeader("X-Retries")`
- B. `request.getIntHeader("X-Retries")`
- C. `request.getRequestHeader("X-Retries")`
- D. `request.getHeaders{"X-Retries"}.get(0)`
- E. `request.getRequestHeaders("X-Retries").get(0)`

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

QUESTION 9

Given an `HttpServletRequest` request and `HttpServletResponse`, which sets a cookie "username" with the value "joe" in a servlet?

- A. `request.addCookie("username", "joe")`
- B. `request.setCookie("username", "joe")`
- C. `response.addCookie("username", "joe")`
- D. `request.addHeader(new Cookie("username", "joe"))`
- E. `request.addCookie(new Cookie("username", "joe"))`
- F. `response.addCookie(new Cookie("username", "joe"))`
- G. `response.addHeader(new Cookie("username", "joe"))`

Correct Answer: F

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

Which annotation enables a servlet to efficiently process requests of type multipart/form-data that involve large files being uploaded by the client?

- A. `@AcceptMultipart`
- B. `@MultiPartConfig`
- C. `@MultiPartFormData`

D. @WebServlet (multipart = true)

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.scribd.com/ilinchen2008/d/38764279-Servlet3-0-Specs> (page 22, last paragraph)

QUESTION 11

APIs for dynamically registering servlets and filters can be called at:

- A. Context initialization time
- B. Any time
- C. There is no way to dynamically register servlets and filters
- D. Context destruction time
- E. Injected into a servlet context

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

ServletRegistration.Dynamic can be used to configure (Choose two)

- A. Filter mappings
- B. add init params
- C. set asyncSupported to true
- D. add Listeners

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.softwareengineeringsolutions.com/blogs/2010/08/01/> (3rd paragraph)

QUESTION 13

A web application wants to register a new servlet at runtime using one of the servletContext.addServlet methods.

In the implementation of which method is it legal to perform this operation?

- A. AsyncListener.oncomplete
- B. Servlet.init
- C. ServletContextListener.contextInitialize
- D. ServletRequestListener.contextInitialize

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 14

You want to create a filter for your web application and your filter will implement

`.servlet.Filter`.

Which two statements are true? (Choose two)

- A. Your filter class must implement an `init` method and a `destroy` method.
- B. Your filter class must also implement `javax.sarvlat.FilterChain`.
- C. When your filter chains to the next filter, it should pass the same arguments it received in its `doFilter` method.
- D. The method that your filter invokes on the object it received that implements `javax servlet.Filterchain` can invoke either another filter or a servlet.
- E. Your filter class must implement a `doFilter` method that takes, among other things, an `HttpServletRequest` object and an `HttpServletResponse` object.

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 15

You have a simple wpb application that has a single Front Controller servlet that dispatches to JSPs generate a variety of views. Several of these views require further database processing to retrieve the necessary order object using the `orderId` request parameter. To do this additional processing, you pass the request first to a servlet that is mapped to the URL pattern `/WEB INF / retrieveOrder.do`. in the deployment descriptor. This servlet takes two request parameters, the `ordered` and the `jspID` and the `jspURL`. It handles the database calls to retrieve and build the complex order objects and then it dispatches to the `jspURL`.

Which code snippet in the Front Controller servlet dispatches the request to the order retrieval servlet?

- A. `request.setAttribute("orderId", orderIS);`
`request.setAttribute("jspURL", jspURL);`
`= context.getRequestDispatcher("/WEB INF / retrieveOrder.do"); view.forward(request, response)`
- B. `request.setAttribute("orderId", orderIS);`
`request.setAttribute("jspURL", jspURL);`
`Dispatcher view`
`= request.getDispatcher("/.WEB INF / retrieveOrder.do"); View.forwardRequest (request, response);`
- C. `String T= "/WEB INF / retrieveOrder.do?orderId = %d&jspURI = %s";` `String url = String.format (T, ordered, jspURL);`
`= context.getRequestDispatcher (url);`
`View.forward (request, response) ;`
- D. `String T= "/WEB INF / retrieveOrder.do?orderId = %d&jspURI = %s";` `String url = String.format (T, ordered, jspURL);`
`= context.getRequestDispatcher (url);`
`View.forwardRequest (request, response) ;`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

In `ServletContext.getNamedDispatcher(string arg0)` `arg0` is the

- A. url of a servlet relative to the `ServletRequest`
- B. url of a servlet relative to the `Context`
- C. name of a servlet
- D. absolute url to any servlet in any `Context`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 17

When using Servlet asynchronous API if you want to dispatch the request back to a particular url `"/url"` within the same Servlet Context which of the following API would you use?

- A. `AsyncContext.dispatch();`
- B. `AsyncContext.dispatch("/url");`
- C. `AsyncContext.dispatch(servletContext, "/url");`
- D. `AsyncContext.start(runnable);`
- E. `RequestDispatcher.forward("/url");`
- F. `RequestDispatcher.forward(servletContext, "/url");`
- G. `RequestDispatcher.include("/url");`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://blogs.oracle.com/enterprisetechtips/entry/asynchronous_support_in_servlet_3 (Topic: `AsyncContext` Class, third paragraph)

QUESTION 18

Which describes a trigger that causes a call to an `AsyncListener`?

- A. Completion of processing
- B. Receipt of a new request from the same client
- C. Addition of a new filter to the processing stream for this request
- D. Completion of each timer interval

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

Refer to the Exhibit.

```

1. package com.example;
2.
3. public class Product {
4.     private String name;
5.     private double price;
6.
7.     public Product() {
8.         this( "Default", 0.0 );
9.     }
10.
11.     public Product( String name, double
price ) {
12.         this.name = name;
13.         this.price = price;
14.     }
15.
16.     public String getName() {
17.         return name;
18.     }
19.
20.     public void setName(String name) {
21.         this.name = name;
22.     }
23.
24.     public double getPrice() {
25.         return price;
26.     }
27.
28.     public void setPrice(double price) {
29.         this.price = price;
30.     }
31. }

```

A servlet sets a session-scoped attribute product with an instance of com.example.product and forward to a JSP. Which two output the name of the product in the response? (Choose two)

- A. <%= product.getName() %>
- B. <jsp:useBean id="product" class="com.example.Product" /> <%= product.getName() %>
- C. <jsp:useBean id="com.example.Product" scope="page"> <%= product.getName() %>
</jsp:useBean>
- D. <jsp:useBean id="product" type="com.example.Product" scope="page" />
<%= product.getName() %>
- E. <jsp:useBean id="product" type="com.example.Product"> <%= product.getName() %>
</jsp:useBean>

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 20

Click the Exhibit button.

Given the HTML form:

1. <html>

2. <body>
3. <form action="submit.jsp">
4. Name: <input type="text" name="i1">

5. Price: <input type="text" name="i2">

6. <input type="submit">
7. </form>
8. </body>
9. </html>

Assume the product attribute does NOT yet exist in any scope. Which code snippet, in submit.jsp, instantiates an instance of com.example.Product that contains the results of the form submission?

```
1. package com.example;
2.
3. public class Product {
4.     private String name;
5.     private double price;
6.
7.     public Product() {
8.         this( "Default", 0.0 );
9.     }
10.
11.     public Product( String name, double
price ) {
12.         this.name = name;
13.         this.price = price;
14.     }
15.
16.     public String getName() {
17.         return name;
18.     }
19.
20.     public void setName(String name) {
21.         this.name = name;
22.     }
23.
24.     public double getPrice() {
25.         return price;
26.     }
27.
28.     public void setPrice(double price) {
29.         this.price = price;
30.     }
31. }
```

- A. <jsp:useBean id="com.example.Product" />
<jsp:setProperty name="product" property="" />
- B. <jsp:useBean id="product" class="com.example.Product" /> \${product.name = param.i1}
\${product.price = param.i2}
- C. <jsp:useBean id="product" class="com.example.Product"> <jsp:setProperty name="product"
property="name"
param="i1" />
<jsp:setProperty name="product" property="price"
param="i2" />
</jsp:useBean>
- D. <jsp:useBean id="product" type="com.example.Product"> <jsp:setProperty name="product"
property="name"
value="<%= request.getParameter("i1") %>" />

```
<jsp:setProperty name="product" property="price"
value="<%= request.getParameter( "i2" ) %>" />
</jsp:useBean>
```

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 21

You need to create a JavaBean object that is used only within the current JSP page. It must NOT be accessible to any other page including those that this page might import. Which JSP standard action < .in accomplish this goal?

- A. <jsp:useBean id = `pageBean' type = `com.example.MyBean' />
- B. <jsp:useBean id = `pageBean' class = `com.example.MyBean' />
- C. <jsp:makeBean id = `pageBean' type = `com.example.MyBean' />
- D. <jsp:makeBean id = `pageBean' class = `com.example.MyBean' />
- E. <jsp:useBean id = `pageBean' class = `com.example.MyBean' />
- F. <jsp:makeBean id = `pageBean' class = `com.example.MyBean' />

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

Given the JavaBean class:

```
public class MyBean {
private Boolean roasted = false;
public MyBean () {}
public Boolean isRoasted () { return roasted }
public void setRoasted (Boolean roasted) { this.roasted = roasted; }}
```

Assume a controller has created an instance of this bean, called setRoasted (true), and inserted the bean into the application scope using the name "myBean".

A JSP contains these two tags:

```
<jsp: useBean id = "aBean" class = "MyBean" scope = "page" \ /> <jsp: getProperty name = "aBean" property =
"roasted" \ />
```

Which is true?

- A. the page will include the output false
- B. the page will include the output
- C. the page will report that the property roasted does not exist
- D. the page will report that the syntax of the useBean tag is incorrect
- E. the page will report that the syntax of the getProperty tag is incorrect

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.emacao.gov.mo/documents/18/06/exam.pdf> (4th table from the top)

QUESTION 23

A developer chooses to avoid using `singleThreadModel` but wants to ensure that data is updated in a thread safe manner.

Which two can support this design goal? (Choose two)

- A. Store the data in a local variable.
- B. Store the data in an instance variable.
- C. Store the data in the `HttpSession` object.
- D. Store the data in the `servletContext` object.
- E. Store the data in the `ServletRequest` object.

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 24

You have a use in your web application that adds several session-scoped attributes. At the end of the use case, one of these objects, the `manage` attribute, is removed and then it needs to decide which of the other session-scoped attributes to remove.

How can this goal be accomplished?

- A. The object of the `manage` attribute should implement the `HttpSessionBindingListener` and it should call the `removeAttribute` method on the appropriate session attributes.
- B. The object of the `manage` attribute should implement the `HttpSessionListener` and it should call the `removeAttribute` method on the appropriate session attributes.
- C. The object of the `manage` attribute should implement the `HttpSessionBindingListener` and it should call the `deleteAttribute` method on the appropriate session attributes.
- D. The object of the `manage` attribute should implement the `HttpSessionListener` and it should call the `deleteAttribute` method on the appropriate session attributes.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 25

The Squeaky Beans Inc. shopping application was initially developed for a non-distributed environment. The company recently purchased the Acme Application Server, which supports distributed `HttpSession` objects. When deploying the application to the server, the deployer marks it as distributable in the web application deployment descriptor to take advantage of this feature. Given this scenario, which two must be true? (Choose two)

- A. The J2EE web container must support migration of objects that implement `Serializable`.
- B. The J2EE web container must use the native JVM Serialization mechanism for distributing `HttpSession` objects.

- C. As per the specification, the J2EE web container ensures that distributed HttpSession objects will be stored in a database.
- D. Storing references to Enterprise JavaBeans components in the HttpSession object might NOT supported by J2EE web contain.

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

Given an HttpServletRequest request and an HttpServletResponse response:

```

41. HttpSession session = null;
42. // insert code here
43. if (session == null) {
44. // do something if session does not exist
45. } else {
46. // do something if session exists
47. }

```

To implement the design intent, which statement must be inserted at line 42?

- A. session = response.getSession ();
- B. session = request.getSession ();
- C. session = request.getSession (true);
- D. session = request.getSession (false);
- E. session = request.getSession ("jsessionId");

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 27

Users of your web application have requested that they should be able to set the duration of their sessions. So for example, one user might want a webapp to stay connected for an hour rather than the webapp's default of fifteen minutes; another user might want to stay connected for a whole day.

Furthermore, you have a special login servlet that performs user authentication and retrieves the object from the database. You want to augment this code to set up the user's specified session duration.

Which code snippet in the login servlet will accomplish this goal?

- A. User user = // retrieves the user objects object from the database session.setDurationInterval (user.getSessionDuration());
- B. User user = // retrieves the User objects from the database session.setInactiveInterval (user.getSessionDuration());
- C. User user = // retrieves the user objects object from the database session.setInactiveInterval (user.get.SessionDuration());
- D. User user = // retrieves the user objects object from the database session.setDuration (user.getSessionDuration());

- E. `User user = // retrieves the user objects object from the database session.setMaxInactiveInterval(user.getSessionDuration());`
- F. `User user = // retrieves the user objects object from the database session.setMaxDurationInterval(user.getSessionDuration());`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 28

Which interface must a class implement so that instances of the class are notified after any object added to a session?

- A. `javax.servlet.http.HttpSessionListener`
- B. `javax.servlet.http.HttpSessionValueListener`
- C. `javax.servlet.http.HttpSessionBindingListener`
- D. `javax.servlet.http.HttpSessionAttributeListener`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 29

Which statement is true about web container session management?

- A. Access to session-scoped attributes is guaranteed to be thread-safe by the web container.
- B. To activate URL rewriting, the developer must use the `HttpServletResponse.setURLRewriting` method.
- C. If the web application uses HTTPS, then the web container may use the data on the HTTPS request stream to identify the client.
- D. The JSESSIONID cookie is stored permanently on the client so that a user may return to the web application and the web container will rejoin that session.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 30

A method call inside your servlet has thrown an `IOException` resulting from a lost network connection to a necessary resource. The servlet has determined that it will be unable to operate successfully for a few minutes, but expects to be able to resume operation after that period. How should this situation be handled?

- A. The servlet should re-throw the exception to the web container.
- B. The servlet should throw a `ServletException` to the web container.
- C. The servlet should throw an `UnavailableException` to the web container.
- D. The servlet should redirect to an error page that reports the exception message.
- E. The servlet should retry the request until the method returns successfully.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://jcp.org/aboutJava/communityprocess/first/jsr053/servlet23_PFD.pdf (page 26, topic: 2.3.3.2, first paragraph)

QUESTION 31

During initialization, a servlet finds that the database connection it requires is unavailable. As the system designer, you know that the database start up completes several minutes after the web- container initializes the servlet. How should this be handled?

- A. Retry the connection until it is successful, then allow the init() method to complete.
- B. Throw a ServletException
- C. Throw the IOException
- D. Throw an UnavailableException

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: http://java.sun.com/j2ee/tutorial/1_3-fcs/doc/Servlets6.html

QUESTION 32

A servlet wishes to indicate that it is unable to initialize at the present time, but that the initialization might succeed at some future time. Which is true?

- A. This cannot be expressed. A servlet either initializes correctly or fails.
- B. This expression is not necessary. If a servlet fails to initialize, the container will try again later each time a request is received that attempts to invoke that servlet.
- C. The servlet should delay until it is ready to complete initialization successfully.
- D. The servlet should throw an UnavailableException
- E. The servlet should throw a ServletException

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 33

You are implementing a model component. You realize that an IOException might arise if you lose connection to the database. How should you address this?

- A. Implement multipathing to provide redundant connectivity to the database, thereby avoiding that risk of connection failure.
- B. Provide an error handler page, and use the page directive in the invoking ISP to redirect to that page if the error arises.
- C. Use the JSTL <c:catch> tag to take control if the exception arises.
- D. Surround the problem area with a try/catch block and implement appropriate recovery or fallback behavior.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.ibm.com/developerworks/java/library/j-jstl0318/> (topic: exception handling)

QUESTION 34

Which is a valid value for the enum EmptyRoleSemantic in Javax.servlet.annotation.ServletSecurity?

- A. ADMIT
- B. PERMIT
- C. EXCLUDE
- D. DENYALL
- E. ALLOWALL

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://tomcat.apache.org/tomcat-7.0-doc/servletapi/javax/servlet/annotation/ServletSecurity.EmptyRoleSemantic.html>

QUESTION 35

Given the annotation for MyServlet:

```
@WebServlet("/abc")
@ServletSecurity (value=@HttpConstraint)
public class Myservlet extends HttpServlet {
```

Which two are true? (Choose two)

- A. No protection of user data must be performed by the transport.
- B. All user data must be encrypted by the transport.
- C. Access is to be denied independent of authentication state and identity.
- D. Only authenticated users are to be permitted.
- E. Access is to be permitted independent of authentication state and identity.

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 36

Which of the following annotations relate to security in a servlet? (i) @WebSecurity

- (ii) @RolesAllowed
- (iii) @WebConstraint
- (iv) @HttpConstraint
- (v) @Servletsecurity

- A. (i) only
- B. (i) and (iii)
- C. (iv) and (v)
- D. (iii) and (v)

E. (ii) and (iv)

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 37

Which element of a web application deployment descriptor <web-resource-collection> element is used to specify a HTTP method to which the corresponding <security-constraint> will not apply?

- A. <exclude-http-method>
- B. <neglect-http-method>
- C. <http-method-omission>
- D. <http-method-excluded>
- E. <exceptional-http-method>

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://java.sun.com/xml/ns/javaee/web-common_3_0.xsd (search http-method- omission)

QUESTION 38

Which two statements are true about the security-related tags in a valid Java EE deployment descriptor? (Choose two)

- A. Every <security-constraint> tag must have at least one <http-method> tag.
- B. A <security-constraint> tag can have many <web-resource-collection> tags.
- C. A given <auth-constraint> tag can apply to only one <web-resource-collection> tag.
- D. A given <web-resource-collection> tag can contain from zero to many <url-pattern> tags.
- E. It is possible to construct a valid <security-constraint> tag such that, for a given resource user roles can access that resource.

Correct Answer: BE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 39

A cookie may be set to be an HttpOnly cookie. Setting a cookie to be HttpOnly results in (Choose two)

- A. Client to not expose the cookie to client side scripting code
- B. Does not work with https protocol
- C. prevent certain types of cross-site scripting attacks
- D. There is no such thing as an HttpOnly cookie

Correct Answer: AC

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://docs.oracle.com/javaee/6/api/javax/servlet/http/Cookie.html>

QUESTION 40

A popular Ajax framework and its companion widget library contain several hundreds of files of different types (.js, .css, .html). Your company has mandated that all its web applications use only specific versions of this framework approved by IT and repackaged internally as jar files. Furthermore, web applications should only include the entire jar, without subsetting or modification.

Where should the framework's files be placed inside a jar file to enable this kind of reuse?

- A. under resources
- B. under META-INF/resources
- C. under META-INF/web-contents
- D. under WEB-INF/resources

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://ocpssoft.com/opensource/create-common-facelets-jar/> (check the box with the update)

QUESTION 41

Which two actions protect a resource file from direct HTTP access within a web application? (Choose two)

- A. placing it in the /secure directory
- B. placing it in the /WEB-INF directory
- C. placing it in the /META-INF/secure directory
- D. creating a <web-resource> element within the deployment descriptor
- E. creating a <secure-resource> element within the deployment descriptor

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:**QUESTION 42**

In which two locations can library dependencies be defined for a web application? (Choose two)

- A. the web application deployment descriptor
- B. the /META-INF/dependencies.xml file
- C. the /META-INF/MANIFEST.MF manifest file
- D. the /META-INF/MANIFEST.MF manifest of a JAR in the web application classpath

Correct Answer: CD

Section: (none)

Explanation

Explanation/Reference:**QUESTION 43**

The jquery_1_3_2.jar file contains the JQuery Ajax framework in its META-INF/ resources directory. Where should the jar file be placed inside the web application to ensure the resources it contains are accessible by clients?

- A. WEB-INF/classes
- B. WEB-INF/jar
- C. WEB-INF/lib
- D. WEB-INF/resources

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference:

http://www.ibm.com/developerworks/websphere/library/techarticles/0112_deboer/deboer.html (topic: web modules, third paragraph)

QUESTION 44

Given a jar file packaged with three web fragments with names X, Y and Z respectively.

Which of the following deployment descriptor, web.xml, snippets correspond to the web fragment processing orders of X, Y, Z?

(i) `<absolute-ordering>`
`<name>X</name>`
`<name>Y</name>`
`<name>Z</name>`
`</absolute-ordering>`

(ii) `<absolute-ordering>`
`<name>X</name>`
`<name>Y</name>`
`</absolute-ordering>`

(iii) `<absolute-ordering>`
`</others>`
`<name>Y</name>`
`<name>Z</name>`
`</absolute-ordering>`

(iv) `<absolute-ordering>`
`<name>X</name>`
`</others>`
`<name>Z</name>`
`</absolute-ordering>`

(v) `<absolute-ordering>`
`<name>X</name>`
`<name>Y</name>`
`</others>`
`</absolute-ordering>`

- A. (i) only
- B. (i) and (ii)
- C. (i) and (iv)
- D. (i), (iii), (iv) and (v)

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference: http://blogs.oracle.com/swchan/entry/servlet_3_0_web_fragment

QUESTION 45

Which defines the welcome files in a web application deployment descriptor?

- A. `<welcome>`
`<welcome-file> /welcome.jsp</welcome-file>`
`</welcome>`
`<welcome>`
`<welcome-file>/index.html</welcome-file>`
`</welcome>`
- B. `<welcome-file-list>`
`<welcome-file> welcome.jsp</welcome-file>`
`<welcome-file>index.html</welcome-file>`
`</welcome-file-list>`
- C. `<welcome>`
`<welcome-file>welcome.jsp</welcome-file>`
`</welcome>`
`<welcome-file>index.html</welcome-file>`
`</welcome>`
- D. `<welcome-file-list>`
`<welcome-file> welcome.jsp</welcome-file>`
`<welcome-file>/index.html</welcome-file>`
`</welcome-file-list>`
- E. `<welcome>`
`<welcome-file>`
`<welcome-name> welcome</welcome-name>`
`<location> welcome.jsp</location>`
`</welcome-file>`
`<welcome-file>`
`<welcome-name>index</welcome-name>`
`<location> index</location>`
`</welcome-file>`
`</welcome>`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 46

Which code snippet specifies the metadata for a servlet with:

- (i) url mapping `"/mytest"`
- (ii) Initial parameter with name `"debug"` and value `"10"`
- (iii) Support asynchronous operation?

- A. `@WebServlet("/mytest")`
`@InitParam(name="debug" value = "10")`
`@Asynchronous`
`public class TestServlet extends HttpServlet {}`
- B. `@WebServlet("/myset")`


```
@WebParam(name = "debug" value = "10")
Public class testServlet {}
```

- C. `@WebServlet (urlPatterns = { / "mytest"}, Initparams = {@InitParam (name = "debug", value = "10") }, supportAsync = true) public class TestServlet extends HttpServlet {}`
- D. `@WebServlet (urlPatterns = { / "mytest"}, Initparams = {@InitParam (name = "debug", value = "10") }, asyncSupported = true) public class TestServlet extends HttpServlet {}`
- E. `@WebServlet (urlPatterns = { / "mytest"}, Initparam = @WebInitParam (name = "debug", value = "10"), supportAsync = true) public class testServlet {}`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 47

Which annotation specifies the metadata as a `javax.servlet.http.HttpSessionListener`?

- A. `@Listener`
- B. `@WebListener`
- C. `@WebSessionListener`
- D. `@HttpSessionListener`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: http://docs.oracle.com/cd/E12840_01/wls/docs103/webapp/annotateservlet.html (table 8-1, third row)

QUESTION 48

You are creating a new JSP page and you need to execute some code that acts when the page is first executed, but only once. Which three are possible mechanisms for performing this initialization code? (Choose three)

- A. In the `init` method.
- B. In the `jspInit` method.
- C. In the constructor of the JSP's Java code.
- D. In a JSP declaration, which includes an initializer block.
- E. In a JSP declaration, which includes a static initializer block.

Correct Answer: BDE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 49

You are creating a web form with this HTML:

11. <form action="sendOrder.jsp">
12. <input type="text" name="creditCard">
13. <input type="text" name="expirationDate">
14. <input type="submit">
15. </form>

Which HTTP method is used when sending this request from the browser?

- A. GET
- B. PUT
- C. POST
- D. SEND
- E. FORM

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 50

Your web application requires the ability to load and remove web files dynamically to the web container's file system? Which two HTTP methods are used to perform these actions? (Choose two)

- A. PUT
- B. POST
- C. SEND
- D. DELETE
- E. REMOVE
- F. DESTROY

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 51

A web application wants to expose to its clients an operation that results in a transaction being performed across several systems, for example the transfer of money from one bank account to another

Which HTTP method should it use?

- A. GET
- B. HEAD
- C. OPTIONS
- D. POST

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: [http://en.wikipedia.org/wiki/POST_\(HTTP\)](http://en.wikipedia.org/wiki/POST_(HTTP))

QUESTION 52

A Client wants to retrieve a representation of a resource, e.g. an XML document, localized according to the preferences of the user. Each user is allowed to specify one or more languages, in order of preference. Such preferences are application independent. How can the Client send language preference Information to the Server using a standard HTTP facility?

- A. In the request body
- B. In a request header
- C. In the request line
- D. In the request URL

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.w3.org/International/questions/qa-lang-priorities.en.php> (Check the answer, first paragraph)

QUESTION 53

Which JSTL code snippet can be used to import content from another web resource?

- A. `<c:import url = "foo.jsp"/>`
- B. `<c:import page = "foo.jsp"/>`
- C. `<c:include url = "foo.jsp"/>`
- D. `<c:include page = "foo.jsp"/>`
- E. Importing cannot be done in JSTL. A standard action must be used instead.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 54

In a jsp-centric shopping cart application cart application to move a client's home address of Customer object into the shipping address of the order object. The address data is stored in a value object class called Address with properties for: street address, city, province, country, and postal code.

Which two code snippets can be used to accomplish this goal?

- A. `<c:set var='order' property='shipAddress' value='${client.homeAddress}' />`
- B. `<c:set target='${order}' property='shipAddress' value='${client.homeAddress}' />`
- C. `<jsp:setProperty name='${order}' property='shipAddress' value='${client.homeAddress}' />`
- D. `<c:set var='order' property='shipAddress'>`
`<jsp:getProperty name='client' property='homeAddress' /> </c:store>`
- E. `<c:set target='${order}' property='shipAddress'>`
`<jsp:getProperty name='client' property='homeAddress' /> </c:set>`
- F. `<c:setProperty name='${order}' property='shipAddress'>` `<jsp:getProperty name='client' property='homeAddress' /> </c:setProperty>`

Correct Answer: BE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 55

You are creating a JSP page to display a collection of data. This data can be displayed in several different ways so the architect on your project decided to create a generic servlet that generates a comma delimited string so that various pages can render the data in different ways. This servlet takes on request parameter: objectId. Assume that this servlet is mapped to the URL pattern: /WEB-INF/data.

In the JSP you are creating, you need to split this string into its elements separated by commas and generate an HTML list from the data.

Which JSTL code snippet will accomplish this goal?

- A.

```
<c:import varReader='dataString' url='/WEB-INF/data'>
<c:param name='objectId' value='${currentOID}' />
</c:import>
<ul>
<c:forEach items='${dataString.split(",")}' var='item'> <li>${item}</li>
</c:forEach>
</ul>
```
- B.

```
<c:import varReader='dataString' url='/WEB-INF/data'>
<c:param name='objectId' value='${currentOID}' />
</c:import>
<ul>
<c:forEach items='${dataString}' delims=',' var='item'> <li>${item}</li>
</c:forEach>
</ul>
```
- C.

```
<c:import var='dataString' url='/WEB-INF/data'>
<c:param name='objectId' value='${currentOID}' />
</c:import>
<ul>
<c:forEach items='${dataString.split(",")}' var='item'> <li>${item}</li>
</c:forEach>
</ul>
```
- D.

```
<c:import var='dataString' url='/WEB-INF/data'>
<c:param name='objectId' value='${currentOID}' />
</c:import>
<ul>
<c:forEach items='${dataString}' delims=',' var='item'> <li>${item}</li>
</c:forEach>
</ul>
```

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 56

Which JSP standard action can be used to import content from a resource called foo.jsp?

- A. <jsp:import file='foo.jsp' />
- B. <jsp:import page='foo.jsp' />
- C. <jsp:include page='foo.jsp' />
- D. <jsp:include file='foo.jsp' />
- E. <jsp:import>foo.jsp</jsp:import>
- F. <jsp:include>foo.jsp</jsp:include>

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 57

Refer to the Exhibit.

```

1. <?xml version="1.0" encoding="UTF-8" ?>
2.
3. <taglib
xmlns="http://java.sun.com/xml/ns/j2ee"
4.   xmlns:xsi="http://www.w3.org/2001/XMLSchema
a-instance"
5.   xsi:schemaLocation="http://java.sun.com/xml
1/ns/j2ee web-jsptaglibrary_2_0.xsd"
6.   version="2.0">
7.   <tlib-version>1.0</tlib-version>
8.   <short-name>forum</short-name>
9.   <uri>http://example.com/tld/forum</uri>
10.  <tag>
11.    <name>message</name>
12.
<tag-class>com.example.MessageTag</tag-class>
13.
<body-content>scriptless</body-content>
14.   <attribute>
15.     <name>from</name>
16.     <rtextprvalue>true</rtextprvalue>
17.   </attribute>
18.   <attribute>
19.     <name>subject</name>
20.     <required>false</required>
21.     <rtextprvalue>true</rtextprvalue>
22.   </attribute>
23. </tag>
24. </taglib>

```

Assuming the tag library in the exhibit is imported with the prefix forum, which custom tag invocation procedures a transaction error in a jsp page?

- A. <forum:message from="My Name" subject="My Subject" />
- B. <forum:message subject="My Subject">
My message body.
</forum:message>
- C. <forum:message from="My Name" subject="{param.subject}"> \${param.body}
</forum:message>

- D. `<forum:message from="My Name" subject="My Subject"> <%= request.getParameter("body") %>`
`</forum:message>`
- E. `<forum:message from="My Name"`
`subject="<%= request.getParameter("subject") %>"> My message body.`
`</forum:message>`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 58

Which is a benefit of precompiling a JSP page?

- A. It avoids initialization on the first request.
- B. It provides the ability to debug runtime errors in the application.
- C. It provides better performance on the first request for the JSP page.
- D. It avoids execution of the `_jspService` method on the first request.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 59

A web browser need NOT always perform a complete request for a particular page that it suspects might NOT have changed. The HTTP specification provides a mechanism for the browser to retrieve only a partial response from the web server; this response includes information, such as the Last-Modified date but NOT the body of the page. Which HTTP method will the browser use to retrieve such a partial response?

- A. GET
- B. ASK
- C. SEND
- D. HEAD
- E. TRACE
- F. OPTIONS

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 60

A Client wants to retrieve a representation of a resource, for example an HTML page, allowing a cached version to be returning by an intermediary such a proxy server.
Which HTTP method should it use?

- A. GET
- B. PUT

- C. POST
- D. DELETE

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

The first version of the HTTP protocol had only one method, namely GET, which would request a page from a server. The response from the server was always an HTML page

QUESTION 61

Which two are true about the JSTL core iteration custom tags? (Choose two.)

- A. It may iterate over arrays, collections, maps, and strings.
- B. The body of the tag may contain EL code, but not scripting code.
- C. When looping over collections, a loop status object may be used in the tag body.
- D. It may iterate over map, but only the key of the mapping may be used in the tag body.
- E. When looping over integers (for example begin= `1` end= `10`), a loop status object may not be used in the tag body.

Correct Answer: AC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 62

Assume a JavaBean com.example.GradedTestBean exists and has two attributes. The attribute name of type java.lang.string and the attribute score is of type java.lang.Integer.

An array of com.example.GradedTestBean objects is exposed to the page in a request-scoped attribute called results. Additionally, an empty java.util.HashMap called resultMap is placed in the page scope.

A JSP page needs to add the first entry in results to resultMap, storing the name attribute of the bean as the key and the score attribute of the bean as the value.

Which code snippet of JSTL code satisfies this requirement?

- A. `${resultMap[results[0].name] = results[0].score}`
- B. `<c:set var="${resultMap}" key="{results[0].name}" value="${results[0].score}" />`
- C. `<c:set var="resultMap" property="${results[0].name}"> ${results[0].value}`
`</c:set>`
- D. `<c:set var="resultMap" property="${results[0].name}"> value="${results[0].score}" />`
- E. `<c:set target="${resultMap}" property="${results[0].name}"> value="${results[0].score}" />`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 63

For manageability purposes, you have been told to add a "count" instance variable to a critical JSP Document so that a JMX MBean can track how frequent this JSP is being invoked. Which JSP code snippet must you use to declare this instance variable in the JSP Document?

- A. `<jsp:declaration>`
 `int count = 0;`
 `</jsp:declaration>`
- B. `<%! int count = 0; %>`
- C. `<jsp:declaration.instance>`
 `int count = 0;`
 `</jsp:declaration.instance>`
- D. `<jsp:scriptlet.declaration>`
 `int count = 0;`
 `</jsp:scriptlet.declaration>`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 64

To take advantage of the capabilities of modern browsers that use web standards, such as XHTML and CSS, your web application is being converted from simple JSP pages to JSP Document format. However, one of your JSPs, /scripts/screenFunctions.jsp, generates a JavaScript file. This file is included in several web forms to create screen-specific validation functions and are included in these pages with the following statement:

```
10. <head>
11.   <script> src='/scripts/screenFunctions.jsp'
12.     language='javascript'
13.     type='application/javascript'> </script>
14. </head>
15. <!--body of the web form -->
```

Which JSP code snippet declares that this JSP Document is a JavaScript file?

- A. `<%@ page contentType='application/javascript' %>`
- B. `<jsp:page contentType='application/javascript' />`
- C. `<jsp:document contentType='application/javascript' />`
- D. `<jsp:directive.page contentType='application/javascript' />`
- E. No declaration is needed because the web form XHTML page already declares the MIME type of the /scripts/screenFunctions.jsp file in the `<script>` tag.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 65

You are building your own layout mechanism by including dynamic content for the page's header and footer sections. The footer is always static, but the header generates the `<title>` tag that requests the page name to be

specified dynamically when the header is imported. Which JSP code snippet performs the import of the header content?

- A. `<jsp:include page="/WEB-INF/jsp/header.jsp">
<jsp:param name="pageName" value="Welcome Page" />
</jsp:include>`
- B. `<jsp:import page="/WEB-INF/jsp/header.jsp">
<jsp:param name="pageName" value="Welcome Page" />
</jsp:import>`
- C. `<jsp:include page="/WEB-INF/jsp/header.jsp">
<jsp:attribute name="pageName" value="Welcome Page" /> </jsp:include>`
- D. `<jsp:import page="/WEB-INF/jsp/header.jsp">
<jsp:attribute name="pageName" value="Welcome Page" /> </jsp:import>`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 66

View the exhibit.

```
1. <?xml version="1.0" encoding="UTF-8" ?>
2.
3. <taglib
xmlns="http://java.sun.com/xml/ns/j2ee"
4.   xmlns:xsi="http://www.w3.org/2001/XMLSchema
a-instance"
5.   xsi:schemaLocation="http://java.sun.com/xml
1/ns/j2ee web-jsptaglibrary_2_0.xsd"
6.   version="2.0">
7.   <tlib-version>1.0</tlib-version>
8.   <short-name>ex</short-name>
9.
<uri>http://example.com/tld/example</uri>
10.   <tag>
11.     <name>hello</name>
12.
<tag-class>com.example.HelloTag</tag-class>
13.
<body-content>scriptless</body-content>
14.   </tag>
15. </taglib>
```

Assume the tag library in the exhibit is placed in a web application in the path /WEB-INF/tld/example.tld.

- 1.
- 2. `<ex:hello />`

Which JSP code, inserted at line 1, completes the JSP code to invoke the hello tag?

- A. `<%@ taglib prefix="ex" uri="/WEB-INF/tld" %>`
- B. `<%@ taglib uri="/WEB-INF/tld/example.tld" %>`
- C. `<%@ taglib prefix="ex"`

```
uri="http://localhost:8080/tld/example.tld" %>
D. <%@ taglib prefix="ex"
uri="http://example.com/tld/example" %>
```

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 67

You are working on a JSP that is intended to inform users about critical errors in the system. The JSP code is attempting to access the exception that represents the cause of the problem, but your IDE is telling you that the variable does not exist. What should you do to address this problem?

- A. Add a page directive stating that this page is an error handler
- B. Add scriptlet code to create a variable that refer to the exception
- C. Add a <jsp:useBean tag to declare the and access the exception>
- D. Perform the error handling in a servlet rather than in the JSP
- E. Edit the page that caused the error to ensure that it specifies this page as its error handler

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Exception is a JSP implicit variable

The exception variable contains any Exception thrown on the previous JSP page with an `errorPage` directive that forwards to a page with an `isErrorPage` directive.

Example:

If you had a JSP (`index.jsp`) which throws an exception (I have deliberately thrown a `NumberFormatException` by parsing a `String`, obviously you wouldn't write a page that does this, its just an example)

```
<%@ page errorPage="error.jsp" %>
<% Integer.parseInt("foo"); //throws an exception %> This will forward to error.jsp,
```

If `error.jsp` was

```
<%@ page isErrorPage = "true"%>
<body>
<h2>Your application has generated an error</h2>
<h3>Please check for the error given below</h3>
<b>Exception:</b><br>
<font color="red"><%= exception.toString() %></font> </body>
Because it has the
```

```
<%@ page isErrorPage = "true"%>
page directive, the implicit variable exception will contain the Exception thrown in the previous jsp
```

So when you request `index.jsp`, the Exception will be thrown, and forwarded to `error.jsp` which will output html like this

```
<body>
<h2>Your application has generated an error</h2>
<h3>Please check for the error given below</h3>
```

Exception:

java.lang.NumberFormatException: For input string: "foo" </body>

As @JB Nizet mentions exception is an instanceof Throwable calling exception.getMessage() For input string: "foo" instead of java.lang.NumberFormatException: For input string: "foo"

QUESTION 68

All of your JSPs need to have a link that permits users to email the web master. This web application is licensed to many small businesses, each of which have a different email address for the web master. You have decided to use a context parameter that you specify in the deployment descriptor, like this:

42. <context-param>

43. <param-name>webmasterEmail</param-name>

44. <param-value>master@example.com</param-value>

45. </context-param>

Which JSP code snippet creates this email link?

- A. contact us
- B. contact us
- C. contact us
- D. contact us

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 69

Which EL expression evaluates to the request URI?

- A. \${requestURI}
- B. \${request.URI}
- C. \${request.getURI}
- D. \${request.requestURI}
- E. \${requestScope.requestURI}
- F. \${pageContext.request.requestURI}
- G. \${requestScope.request.requestDRI}

Correct Answer: F

Section: (none)

Explanation

Explanation/Reference:

QUESTION 70

You are building a dating web site. The client's date of birth is collected along with lots of other information. The Person class has a derived method, getAge() :int, which returns the person's age calculated from the date of birth and today's date. In one of your JSPs you need to print a special message to clients within the age group of 25 through 35.

Which two EL code snippets will return true for this condition? (Choose two.)

- A. \${client.age in [25,35]}

- B. `${client.age between [25,35]}`
- C. `${client.age between 25,35}`
- D. `${client.age <= 35 && client.age >= 25}`
- E. `${client.age le 35 and client.age ge 25}`
- F. `${client.age > 35 && client.age < 25}`

Correct Answer: DE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 71

Given an EL function declared with:

```

11. <function>
12.   <name>spin</name>
13.   <function-class>com.example.Spinner</function-class>
14.   <function-signature>
15.     java.lang.String spinIt ()
16.   </function-signature>
17. </function>

```

Which two are true? (Choose two)

- A. The function method must have the signature:
public String spin().
- B. The method must be mapped to the logical name "spin" in the web.xml file.
- C. The function method must have the signature:
public String spinIt().
- D. The function method must have the signature:
public static String spin().
- E. The function method must have the signature:
public static String spinIt().
- F. The function class must be named Spinner, and must be in the package com.example.

Correct Answer: EF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 72

Which EL expression returns true if no session has been established with current client?

- A. `${not(pageContext.session)}`
- B. `${not(requestScope.session)}`
- C. `${requestScope.sessions.this}`
- D. `${sessionScope.empty}`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Note:

* A session is never null. The session is always present in JSP EL, unless you add

```
<%@page session="false" %>
```

* If you'd like to check if the session is new or has already been created, use `HttpSession#isNew()` instead.

```
<c:if test="${not pageContext.session['new']}">
```

```
<p>You've already visited this site before.</p>
```

```
</c:if>
```

```
<c:if test="${pageContext.session['new']}">
```

```
<p>You've just started the session with this request!</p> </c:if>
```

QUESTION 73

Your web application uses a simple architecture in which servlets handle requests and then forward to a JSP using a request dispatcher. You need to pass information calculated in the servlet to the JSP for view generation. This information must NOT be accessible to any other servlet, JSP or session in the webapp. Which two techniques can you use to accomplish this goal? (Choose two)

- A. Add attributes to the session object.
- B. Add attributes on the request object.
- C. Add parameters on the request object.
- D. Use the `pageContext` object to add request attributes.
- E. Add parameters to the JSP's URL when generating the request dispatcher.

Correct Answer: BE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 74

A web application for business expense reporting allows uploading expense receipts. Multiple receipts can be uploaded single step using one HTTP request. The servlet that processes the request has been marked with the `@MultipartConfig` annotation. Which method should the servlet use to access the uploaded files?

- A. `HttpServletRequest.getParts()`
- B. `HttpServletRequest.getData()`
- C. `servletRequest.getParts()`
- D. `servletRequest.getAllParts()`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

The `request.getParts()` method returns collections of all `Part` objects. If you have more than one input of type file, multiple `Part` objects are returned. Since `Part` objects are named, the `getPart(String name)` method can be used to access a particular `Part`. Alternatively, the `getParts()` method, which returns an `Iterable<Part>`, can be used to get an `Iterator` over all the `Part` objects.

QUESTION 75

For which three events can web application event listeners be registered? (Choose three.)

- A. when a session is created
- B. after a servlet is destroyed
- C. when a session has timed out
- D. when a cookie has been created
- E. when a servlet has forwarded a request
- F. when a session attribute value is changed

Correct Answer: ACF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 76

To add a servlet to a context that has not been declared either via annotation or via the descriptor, during context initialization time the following API can be used (Choose three.)

- A. `servletContext.addServlet("myServletName", "MyServlet");`
- B. `servletContext.addServlet((<Class extends Servlet>)getClass().getClassLoader().getClassLoader().loaderClass("MyServlet"));`
- C. `servletContext.addServlet(myServlet);`
- D. `servletContext.addServlet(("myServletName", <Class extends Servlet>)gerClass().getClassLoader().loaderClass("myServlet"));`
- E. `servletContext.addServlet("myServletName", MyServlet);`

Correct Answer: ADE

Section: (none)

Explanation

Explanation/Reference:

`addServlet`

`ServletRegistration.Dynamic addServlet(java.lang.String servletName, java.lang.Class<? extends Servlet> servletClass)`

Adds the servlet with the given name and class type to this servlet context. The registered servlet may be further configured via the returned `ServletRegistration` object.

Parameters:

`servletName` - the name of the servlet

`servletClass` - the class object from which the servlet will be instantiated

QUESTION 77

`ServletContextListeners` are invoked in

- A. Random order
- B. `contextInitialized` and `contextDestroyed` are invoked in the order in which they are declared in the `web.xml`
- C. `contextInitialized` method are invoked in the order in which they are declared in the `web.xml` and the `contextDestroyed` method is invoked in the reverse order in which they are declared in the `web.xml`
- D. `contextInitialized` and `contextDestroyed` are invoked in the reverse order of which they are declared in the `web.xml`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

public interface ServletContextListener

extends java.util.EventListener

Interface for receiving notification events about ServletContext lifecycle changes.

In order to receive these notification events, the implementation class must be either declared in the deployment descriptor of the web application, annotated with `WebListener`, or registered via one of the `addListener` methods defined on `ServletContext`.

Implementations of this interface are invoked at their `contextInitialized(javax.servlet.ServletContextEvent)` method in the order in which they have been declared, and at their `contextDestroyed(javax.servlet.ServletContextEvent)` method in reverse order.

QUESTION 78

A servlet class is injected with a JDBC data source. After injection has occurred, the servlet needs to create a cache out of some of the data in the database, so as to improve responsiveness. Which two methods can host the cache creation code? (Choose two)

- A. `Servlet.init()`
- B. `Servlet.destroy()`
- C. A method annotated with `@Init`
- D. A method annotated with `@PostConstruct`
- E. A method annotated with `@PreDestroy`
- F. A method annotated with `@Resource`

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

A: Because the `Servlet init()` method is invoked when the servlet instance is loaded, it is the perfect location to carry out expensive operations that need only be performed during initialization. By definition, the `init()` method is thread-safe. The results of operations in the `HttpServlet.init()` method can be cached safely in servlet instance variables, which become read-only in the servlet service method.

D: Example:

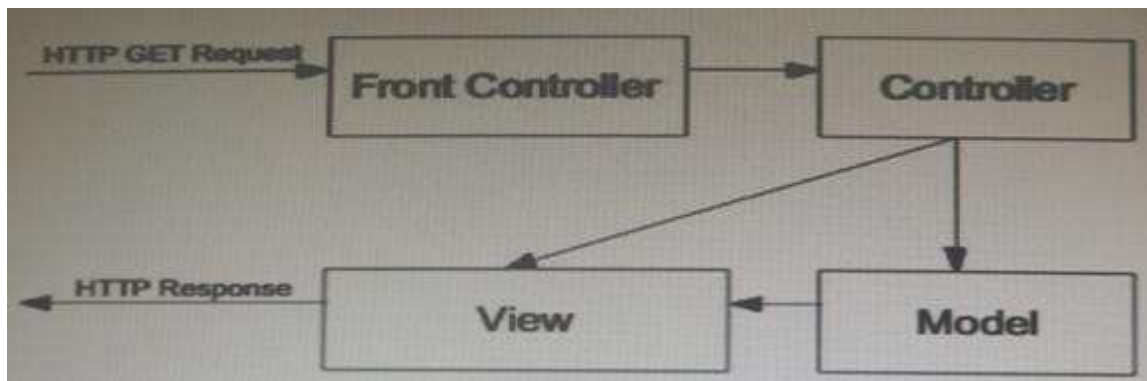
`@PostConstruct`

`private void init() {`

`cached = (Cached) ctx.lookup(EJB_PATH + Cached.class.getSimpleName());`

QUESTION 79

View the Exhibit.



Which two technologies would be suitable for use as Front Controller elements? (Choose two)

- A. JSP
- B. Servlet
- C. Filter
- D. POJO
- E. Custom Tag

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

* Servlet only. Works well when:

Output is a binary type. E.g.: an image

There is no output. E.g.: you are doing forwarding or redirection as in Search Engine example.

Format/layout of page is highly variable. E.g.: portal.

* JSP only. Works well when:

Output is mostly character data. E.g.: HTML

Format/layout mostly fixed.

* Combination (MVC architecture). Needed when:

A single request will result in multiple substantially different looking results. You have a large development team with different team members doing the Web development and the business logic.

You perform complicated data processing, but have a relatively fixed layout

Incorrect:

Not D: In computing software, POJO is an acronym for Plain Old Java Object. The name is used to emphasize that a given object is an ordinary Java Object, not a special object. The term "POJO" is mainly used to denote a Java object which does not follow any of the major Java object models, conventions, or frameworks. The term continues the pattern of older terms for technologies that do not use fancy new features.

QUESTION 80

View the Exhibit.


```

// Source Servlet : Source.java
10. public class Source extends HttpServlet {
11.     public void service(HttpServletRequest request,
12.         HttpServletResponse response)
13.         throws ServletException, IOException {
14.         RequestDispatcher rd =
15.             request.getRequestDispatcher("/dest/Destination");
16.         rd.forward(request, response);
17.     }
18. }

// Filter : ParamAdder.java
12. public class ParamAdder implements Filter {
13.     // ...
23.     public void doFilter(ServletRequest request,
24.         ServletResponse response,
25.         FilterChain chain)
26.         throws ServletException, IOException {
27.         request.setAttribute("filterAdded", "addedByFilter");
28.         chain.doFilter(request, response);
29.     }
30.     // ...
50. }

// Destination Servlet Destination.java
10. public class Destination extends HttpServlet {
11.     public void service(HttpServletRequest request,
12.         HttpServletResponse response)
13.         throws ServletException, IOException {
14.         String filterParam =
15.             (String) request.getAttribute("filterAdded");
16.         response.getWriter().println("filterAdded = "
17.             + filterParam);
18.     }
19. }

```

Given the web application deployment descriptor elements:

```

11. <filter>
12. <filter-name>ParamAdder</filter-name>
13. <filter-class>com.example.ParamAdder</filter-class>
14. </filter>
...
31. <filter-mapping>
32. <filter-name>ParamAdder</filter-name>
33. <servlet-name>Destination</servlet-name>
34. </filter-mapping>
...
55. <servlet-mapping>
56. <servlet-name>Destination</servlet-name>
57. <url-pattern>/dest/Destination</url-pattern>
58. </servlet-mapping>

```

What is the result of a client request of the Source servlet with no query string?

- A. The output "filterAdded = null" is written to the response stream.
- B. The output "filterAdded = addedByFilter" is written to the response stream.
- C. An exception is thrown at runtime within the service method of the Source servlet.
- D. An exception is thrown at runtime within the service method of the Destination servlet.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 81

Which three are true about the HttpServletRequestWrapper class? (Choose three.)

- A. The HttpServletRequestWrapper is an example of the Decorator pattern.
- B. The HttpServletRequestWrapper can be used to extend the functionality of a servlet request.
- C. A subclass of HttpServletRequestWrapper CANNOT modify the behavior of the getReader method.
- D. An HttpServletRequestWrapper may be used only by a class implement the javax.servlet.Filter interface.
- E. An HttpServletRequestWrapper CANNOT be used on the request passed to the RequestDispatcher interface.
- F. An HttpServletRequestWrapper may modify the header of a request within an object implementing the javax.servlet.Filter interface.

Correct Answer: ABF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 82

Given a war file with the following structure

| - WEB-INF/classes/MyServlet.class
| - WEB-INF/lib/wf.jar

Where wf.jar contains a valid web-fragment.xml and the following two classes: MyFilter1.class and MyFiler2.class.

The web-fragment.xml is as follows:

```
<web-fragment metadata-complete="true">
  <filter>
    <filter-name>MyFilter2</filter-name>
    <filter-class>MyFilter2</filter-class>
  </filter>
  <filter-mapping>
    <filter-name>MyFilter2</filter-name>
    <url-pattern>/</url-pattern>
  </filter-mapping>
</web-fragment>
```

The following are some code snippets:

```
(i) @WebServlet("/")
    public class MyServlet extends HttpServlet {}
(ii) @WebFilter(urlPatterns={"/"})
    public class MyFilter1 implements Filter {}
(iii) @WebFilter(urlPatterns={"/abc"})
    public class MyFilter2 implements Filter {}
```

When one access "/" of the above web application, which filters will be executed?

- A. No filters will be executed.
- B. MyFilter1
- C. MyFilter2
- D. MyFilter1 and MyFilter2

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Note:

* <filter-mapping>

This tag specifies a filter name, and either a URL mapping or servlet name, for a filter that has been defined with the <filter> tag.

Multiple <filter-mapping> tags can be specified for a single <filter>, providing different URL patterns. See the <url-pattern> tag for examples.

The <filter-mapping> has two required elements:

<filter-name> - the filter name, as specified in the <filter-name> element of the <filter> tag Either a <url-pattern> or a <servlet-name>.

If a servlet name is specified, the filter will be called whenever the specific servlet is called.

QUESTION 83

Servlet A forwarded a request to servlet B using the forward method of RequestDispatcher. What attribute in B's request object contains the URI of the original request received by servlet A?

- A. REQUEST_URI
- B. javax.servlet.forward.request_uri
- C. javax.servlet.forward.REQUEST_URI
- D. javax.servlet.request_dispatcher.request_uri
- E. javax.servlet.request_dispatcher.REQUEST_URI

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 84

View the Exhibit.

```

1. package com.example;
2.
3. public class Product {
4.     private String name;
5.     private double price;
6.
7.     public Product() {
8.         this( "Default", 0.0 );
9.     }
10.
11.     public Product( String name, double price ) {
12.         this.name = name;
13.         this.price = price;
14.     }
15.
16.     public String getName() {
17.         return name;
18.     }
19.
20.     public void setName(String name) {
21.         this.name = name;
22.     }
23.
24.     public double getPrice() {
25.         return price;
26.     }
27.
28.     public void setPrice(double price) {
29.         this.price = price;
30.     }
31. }

```

Assume the product attribute does NOT yet exist in any scope. Which two create an instance of com.example.Product and initialize the name and price properties to the name and price request parameters? (Choose two)

- A. `<jsp:useBean id="product" class="com.example.Product" /> <jsp:setProperty name="product" property="*" />`
- B. `<jsp:useBean id="product" class="com.example.Product" /> <% product.setName(request.getParameter("name")); %> <% product.setPrice(request.getParameter("price")); %>`
- C. `<jsp:useBean id="product" class="com.example.Product" /> <jsp:setProperty name="product" property="name" value="{param.name}" /> <jsp:setProperty name="product" property="price" value="{param.price}" />`
- D. `<jsp:useBean id="product" class="com.example.Product"> <jsp:setProperty name="product" property="name" value="{name}" /> <jsp:setProperty name="product" property="price" value="{price}" /> </jsp:useBean>`

Correct Answer: AC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 85

A session-scoped attribute is stored by a servlet, and then servlet forwards to a JSP page. Which three jsp:useBean attributes must be used to access this attribute in the JSP page? (Choose three.)

- A. id
- B. name
- C. bean
- D. type
- E. scope
- F. beanName

Correct Answer: ADE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 86

View the Exhibit.

```

1. package com.example;
2.
3. public class Product {
4.     private String name;
5.     private double price;
6.
7.     public Product() {
8.         this( "Default", 0.0 );
9.     }
10.
11.     public Product( String name, double
price ) {
12.         this.name = name;
13.         this.price = price;
14.     }
15.
16.     public String getName() {
17.         return name;
18.     }
19.
20.     public void setName(String name) {
21.         this.name = name;
22.     }
23.
24.     public double getPrice() {
25.         return price;
26.     }
27.
28.     public void setPrice(double price) {
29.         this.price = price;
30.     }
31. }

```

Given:

```

10. <form action=`create_product.jsp`>
11. Product Name: <input type= `text` name=`productName`/><br/>
12. Product Price: <input type= `text` name=`productPrice`/><br/>
13. </form>

```

For a given product instance, which three jsp:setProperty attributes must be used to initialize its properties from the HTML form? (Choose three.)

- A. id
- B. name
- C. type
- D. param
- E. property
- F. reqParam
- G. attribute

Correct Answer: BDE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 87

A developer wants to make a name attribute available to all servlets associated with a particular user, across multiple requests from that user, from the same browser instance. Which two provide this capability from within a tag handler? (Choose two)

- A. `pageContext.setAttribute("name", theValue);`
- B. `pageContext.setAttribute("name", getSession());`
- C. `pageContext.getRequest().setAttribute("name", theValue);`
- D. `pageContext.getSession().setAttribute("name", theValue);`
- E. `pageContext.setAttribute("name", theValue, PageContext.PAGE_SCOPE);`
- F. `pageContext.setAttribute("name", theValue, PageContext.SESSION_SCOPE);`

Correct Answer: DF

Section: (none)

Explanation

Explanation/Reference:

QUESTION 88

Given that a web application consists of two HttpServlet classes, ServletA and ServletB, and the ServletA.service method:

```
20. String key = "com.example.data";
21. session.setAttribute(key, "Hello");
22. Object value = session.getAttribute(key);
23.
```

Assume session is an HttpSession, and is not referenced anywhere else in ServletA. Which two changes, taken together, ensure that value is equal to "Hello" on line 23? (Choose two)

- A. ensure that the ServletB.service method is synchronized
- B. ensure that the ServletA.service method is synchronized
- C. ensure that ServletB synchronizes on the session object when setting session attributes
- D. enclose lines 21-22 in synchronized block:
`synchronized(this) {`
`session.setAttribute(key, "Hello");`
`value = session.getAttribute(key);`
`}`
- E. enclose lines 21-22 in synchronized block:
`synchronized(session) {`
`session.setAttribute(key, "Hello");`
`value = session.getAttribute(key);`
`}`

Correct Answer: CE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 89

Given an HttpServletRequest request:

```
22. String id = request.getParameter("jsessionId");
23. // insert code here
```

24. String name = (String) session.getAttribute("name")

Which three can be placed at line 23 to retrieve an existing HttpSession object? (Choose three)

- A. HttpSession session = request.getSession();
- B. HttpSession session = request.getSession(id);
- C. HttpSession session = request.getSession(true);
- D. HttpSession session = request.getSession(false);
- E. HttpSession session = request.getSession("jsessionId");

Correct Answer: ACD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 90

As a convenience feature, your web pages include an Ajax request every five minutes to a special servlet that monitors the age of the user's session. The client-side JavaScript that handles the Ajax callback displays a message on the screen as the session ages. The Ajax call does NOT pass any cookies, but it passes the session ID in a request parameter called sessionId. In addition, assume that your webapp keeps a hasmap of session objects by the ID. Here is a partial implementation of this servlet:

```
10. public class SessionAgeServlet extends HttpServlet {
11. public void service(HttpServletRequest request, HttpServletResponse) throws IOException {
12. String sessionId = request.getParameter("sessionId");
13. HttpSession session = getSession(sessionId);
14. long age = // your code here
15. response.getWriter().print(age);
16. }
... // more code here
47. }
```

Which code snippet on line 14, will determine the age of the session?

- A. session.getMaxInactiveInterval();
- B. session.getLastAccessed().getTime() session.getCreationTime().getTime();
- C. session.getLastAccessedTime().getTime() session.getCreationTime().getTime();
- D. session.getLastAccessed() - session.getCreationTime();
- E. session.getMaxInactiveInterval() session.getCreationTime();
- F. session.getLastAccessedTime() session.getCreationTime();

Correct Answer: F

Section: (none)

Explanation

Explanation/Reference:

QUESTION 91

Given the definition of Myobject and that an instance of Myobject is bound as a session attribute:

```
8. package com.example;
9. public class Myobject implements
10. javax.servlet.http.HttpSessionBindingListener {
11. // class body code here
```


12. }

Which is true?

- A. Only a single instance of Myobject may exist within a session
- B. The unbound method of the Myobject instance is called when the session to which it is bound times out
- C. The com.example.MyObject must be declared as a servlet event listener in the web application deployment descriptor
- D. The valueUnbound method of the Myobject instance is called when the session to which it is bound times out

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 92

Your web application requires the adding and deleting of many session attributes during a complex use case. A bug report has come in that indicates that an important session attribute is being deleted too soon and a NullPointerException is being thrown several interactions after the fact. You have decided to create a session event listener that will log when attributes are being deleted so you can track down when the attribute is erroneously being deleted. Which listener class will accomplish this debugging goal?

- A. Create an HttpSessionAttributeListener class and implement the attributeDeleted method and log the attribute name using the getName method on the event object.
- B. Create an HttpSessionAttributeListener class and implement the attributeRemoved method and log the attribute name using the getName method on the event object.
- C. Create an SessionAttributeListener class and implement the attributeRemoved method and log the attribute name using the getAttributeName method on the event object.
- D. Create an SessionAttributeListener class and implement the attributeDeleted method and log the attribute name using the getAttributeName method on the event object.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 93

Which method must be used to encode a URL passed as an argument to HttpServletResponse. sendRedirect when using URL rewriting for session tracking?

- A. ServletResponse.encodeURL
- B. HttpServletResponse.encodeURL
- C. ServletResponse.encodeRedirectURL
- D. HttpServletResponse.encodeRedirectURL

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 94

Which Java expression can be used to check whether the web container is currently configured to track sessions via URL rewriting?

- A. `servletContext.getSessionCookiesConfig().isHttpOnly()`
- B. `servletContext.getSessionCookiesConfig().isSecure()`
- C. `servletContext.getDefaultSessionTrackingModes().contains(SessionTrackingMode.URL)`
- D. `servletContext.getEffectiveSessionTrackingModes().contains (SessionTrackingMode.URL)`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Code example:

String sessionId = null;

```
if (request.getServletContext().getEffectiveSessionTrackingModes().contains(SessionTrackingMode.URL)) {
```

```
// Get the session ID if there was one
sessionId = request.getPathParameter(
    SessionConfig.getSessionUriParamName(
        request.getContext()));
if (sessionId != null) {
    request.setRequestedSessionId(sessionId);
    request.setRequestedSessionURL(true);
}
}
```

C: `getDefaultSessionTrackingModes`

`java.util.Set<SessionTrackingMode> getDefaultSessionTrackingModes()` Gets the session tracking modes that are supported by default for this ServletContext.

QUESTION 95

Which security mechanism uses the concept of a realm?

- A. authorization
- B. data integrity
- C. confidentiality
- D. authentication

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 96

Which java code snippet roles "MANAGER" and "EMPLOYEE" in a given application?

- A. `@DeclareRoles({ "MANAGER", "EMPLOYEE" })`
`public class MyServlet extends HttpServlet {}`
- B. `@SecurityRoles({ "MANAGER", "EMPLOYEE" })`
`public class MyServlet extends HttpServlet {}`
- C. `@DeclareRoles("MANAGER")`

```
@DeclareRoles("EMPLOYEE")
public class MyServlet extends HttpServlet {}
D. @DeclareRole("MANAGER")
   @DeclareRole("EMPLOYEE")
   public class MyServlet extends HttpServlet {}
```

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

* The syntax for declaring more than one role is as shown in the following example:

```
@DeclareRoles({"Administrator", "Manager", "Employee"})
```

* @DeclareRoles

This annotation declares the security roles defined by the application.

* javax.annotation.security

Annotation Type DeclareRoles

@Documented

@Retention(value=RUNTIME)

@Target(value=TYPE)

public @interface DeclareRoles

Used by application to declare roles. It can be specified on a class.

QUESTION 97

Given the java code snippet in contextInitialized method of a ServletContextListener:

```
ServletRegistration.Dynamic sr = (ServletRegistration.Dynamic)sc.addServlet ("myServlet", myServletClass);
sr.addMapping("/abc");
sr.setServletSecurityElement(servletSecurityElement); sr.addMapping("/def");
```

Which statement is true?

- A. "/abc" is mapped to "myservlet". The servletSecurityElementy applies to both "/abc" and "/def".
- B. Both "/abc" and "/def" are mapped to "myservlet". The servletSecurityElementy applies to "/abc".
- C. Both "/abc" and "/def" are mapped to "myservlet". The servletSecurityElementy applies to "/def".
- D. Both "/abc" and "/def" are mapped to "myservlet". The servletSecurityElementy applies to both "/abc" and "/def".
- E. Both "/abc" and "/def" are mapped to "myservlet". The servletSecurityElementy applies to "/abc", but the behavior for "/def" is not specified.

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

Note:

* addMapping

```
public void addMapping(java.lang.String namespace,
```

```
java.lang.String name,
```

```
java.lang.Class clazz)
```

Defines a direct mapping from a namespace and name to a java class (and vice versa)

QUESTION 98

Given:

```
3. class MyServlet extends HttpServlet {
4. public void doPut(HttpServletRequest req,
HttpServletResponse resp)
throws ServletException, IOException {
5. // servlet code here
...
26. }
27. }
```

If the DD contains a single security constraint associated with MyServlet and its only <http- method> tags and <auth-constraint> tags are:

```
<http-method>GET</http-method>
<http-method>PUT</http-method>
<auth-constrain>Admin</auth-constrain>
```

Which four requests would be allowed by the container? (Choose four)

- A. A user whose role is Admin can perform a PUT.
- B. A user whose role is Admin can perform a GET.
- C. A user whose role is Admin can perform a POST.
- D. A user whose role is Member can perform a PUT.
- E. A user whose role is Member can perform a POST.
- F. A user whose role is Member can perform a GET.

Correct Answer: ABCE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 99

Given this fragment in a servlet:

```
23. if(reg.isUserInRole("Admin")) {
24. // do stuff
25. }
```

And the following fragment from the related Java EE deployment descriptor:

```
812. <security-role-ref>
813. <role-name>Admin</role-name>
814. <role-link>Administrator</role-link>
815. </security-role-ref>
900. <security-role>
901. <role-name>Admin</role-name>
902. <role-name>Administrator</role-name>
903. </security-role>
```

What is the result?

- A. Line 24 can never be reached.
- B. The deployment descriptor is NOT valid.
- C. If line 24 executes, the user's role will be Admin.

- D. If line 24 executes, the user's role will be Administrator.
- E. If line 24 executes, the user's role will NOT be predictable.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 100

Which java code snippet checks whether the user is of the role "MANAGER" for a given HttpServletRequest, httpRequest?

- A. httpRequest.isUserInRole("MANAGER");
- B. httpRequest.isCallerInRole("MANAGER");
- C. httpRequest.isPrincipalInRole("MANAGER");
- D. httpRequest.isAuthenticatedUserInRole("MANAGER");

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

isUserInRole

public boolean isUserInRole(java.lang.String role)

Returns a boolean indicating whether the authenticated user is included in the specified logical "role". Roles and role membership can be defined using deployment descriptors. If the user has not been authenticated, the method returns false.

Parameters:

role - a String specifying the name of the role

Returns:

a boolean indicating whether the user making this request belongs to a given role; false if the user has not been authenticated

Incorrect:

Not B: isCallerInRole is depreciated.

QUESTION 101

A web application uses a cookies to track a client as it navigates through the pages that constitutes the application. Which code snippet can be used by the web application to reduce the chance of a cross-site scripting attack by setting some property of the cookie before returning it to the client?

- A. cookie.setHttpOnly(true)
- B. cookie.setMaxAge(3600)
- C. cookie.setPath("/")
- D. cookie.setSecure(true)

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

When HTTPOnly flag is assigned to a cookie, the browser will restrict the access to such Cookie from Java Script code hence the cookie would only be sent to the subsequent request to server but cannot be accessed using client side script. In such a case even if website is vulnerable to Cross Site Scripting (XSS) attacks, still

the browser would safeguard the data stored into cookies flagged as HTTPOnly.

Incorrect:

Not D: If Secure flag is set for Cookie then it may only be transmitted over secure channel (SSL/HTTPS) ensuring that data is always encrypted while transmitting from client to server.

QUESTION 102

Given the portion of a valid Java EE web application's directory structure:

```
MyApp
|-- Directory1
|   |-- File1.html
|-- META-INF
|   |-- File2.html
|-- WEB-INF
|   |-- File3.html
```

You want to know whether File1.html, File2.html, and/or File3.html is protected from direct access by your web client's browsers. What statement is true?

- A. All three files are directly accessible.
- B. Only File1.html is directly accessible.
- C. Only File2.html is directly accessible.
- D. Only File3.html is directly accessible.
- E. Only File1.html and File2.html are directly accessible.
- F. Only File1.html and File3.html are directly accessible.
- G. Only File2.html and File3.html are directly accessible.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Note:

* WEB-INF is the folder just under the root of a WAR that holds information that you don't want to be accessible to a client via a URL request. Specifically, it holds the web.xml, classes, and lib directories, but you can put anything you want to hide from the client there.

* META-INF is what discriminates a JAR file from a plain ZIP file. It holds the manifest file and may hold other deployment information as needed.

QUESTION 103

Given a web fragment jar file, where should we put the web fragment.xml inside the jar file?

- A. WEB-INF
- B. META-INF
- C. WEB-INF/lib
- D. WEB-INF/classes
- E. META-INF/services

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

* If you're dealing with web applications, /WEB-INF/lib is the portable place to put JARs. This is where web servers servlet containers expect to find an application's jar files.

* The /WEB-INF/classes directory is on the ClassLoader's classpath. This is where .class files are loaded from when the web application is executing. Any JAR files placed in the /WEB-INF/lib directory will also be placed on the ClassLoader's classpath.

QUESTION 104

Given the fragment from Java EE deployment descriptor:

```
341. <error-page>
342. <exception-type>java.lang.Throwable</exception-type> 343. <location>/mainError.jsp</location>
344. </error-page>
345. <error-page>
346. <exception-type>java.lang.ClassCastException</exception-type> 347. <location>/castError.jsp</location>
348. </error-page>
```

If the web application associated with the fragment above throws a ClassCastException.
Which statement is true?

- A. The deployment descriptor is invalid.
- B. The container invokes mainError.jsp
- C. The container invokes castError.jsp
- D. Neither mainError.jsp nor castError.jsp is invoked.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 105

You have built a web application that you license to small businesses. The webapp uses a context parameter, called licenseExtension, which enables certain advanced features based on your client's license package. When a client pays for a specific service, you provide them with a license extension key that they insert into the <context-param> of the deployment descriptor. Not every client will have this context parameter so you need to create a context listener to set up a default value in the licenseExtension parameter.
Which code snippet will accomplish this goal?

- A. You cannot do this because context parameters CANNOT be altered programmatically.
- B.

```
String ext = context.getParameter('licenseExtension'); if ( ext == null ) {
    context.setParameter('licenseExtension' DEFAULT);
}
```
- C.

```
String ext = context.getAttribute('licenseExtension'); if ( ext == null ) {
    context.setAttribute('licenseExtension' DEFAULT);
}
```
- D.

```
String ext = context.getInitParameter('licenseExtension') if ( ext == null ) {
    context.resetInitParameter('licenseExtension' DEFAULT); }
```
- E.

```
String ext = context.getInitParameter('licenseExtension') if ( ext == null ) {
    context.setInitParameter('licenseExtension' DEFAULT); }
```

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 106

Which of the following are attributes of the annotation `javax.servlet.annotation.WebFilter`?

- (i) Name
- (ii) `servletNames`
- (iii) `urlPatterns`
- (iv) `dispatcherTypes`
- (v) `supportAsync`

- A. (iii) only
- B. (iii) and (iv)
- C. (ii), (iii) and (iv)
- D. (iii), (iv) and (v)
- E. (ii), (iii), (iv) and (v)

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

* (iii) `urlPatterns`

The URL patterns to which the filter applies

* (iv) `dispatcherTypes`

The dispatcher types to which the filter applies

* (not V): `asyncSupported`

Declares whether the filter supports asynchronous operation mode.

Note:

* `javax.servlet.annotation`

Annotation Type `WebFilter`

Annotation used to declare a servlet filter.

This annotation is processed by the container at deployment time, and the corresponding filter applied to the specified URL patterns, servlets, and dispatcher types.

QUESTION 107

Which of following annotations can be used in a servlet class?

- (i) `@javax.annotation.Resource`
- (ii) `@javax.annotation.PreDestroy`
- (iii) `@javax.annotation.security.RunAs`
- (iv) `@javax.annotation.security.RolesAllowed`
- (v) `@javax.servlet.annotation.WebServlet`

- A. (v) only
- B. (i) and (v)
- C. (i), (ii), (iii) and (v)

- D. (i), (ii), (iv) and (v)
- E. (i), (ii), (iii), (iv) and (v)

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

* (i) The javax.annotation.Resource annotation is used to declare a reference to a resource. @Resource can decorate a class, a field, or a method.

* (v) javax.servlet.annotation
Annotation Type@WebServlet

Annotation used to declare a servlet.

This annotation is processed by the container at deployment time, and the corresponding servlet made available at the specified URL patterns.

Incorrect:

* Not (II) : javax.annotation.PreDestroy
Target: Method

QUESTION 108

When using the @WebListener annotation, the class on which the annotation is applied to must also implement at least one of the following interfaces (Choose two):

- A. RequestListener
- B. AttributeListener
- C. ServletContextListener
- D. HttpSessionListener
- E. SessionAttributeListener
- F. AsyncListener

Correct Answer: CD

Section: (none)

Explanation

Explanation/Reference:

@WebListener

The main task of the listener is to listen the particular events and process your own task on that event. For example, if you want to initialize a database connection before your application starts, ServletContextListener will be implemented to do that. Another good example is -when you want to do some task on the creation and destruction of a session. For this purpose you need to implement HttpSessionListener.