

Exercise 4 (20 Questions: Answers)

1. In any Java server that supports the Java EE specification, the way to set up a *connection pool* is the same.

(a) true (b) ☒ false

2. In a Java *connection pool*, before a connection object is recycled, it has to be destroyed first.

(a) true (b) ☒ false

3. In a Java server, is it possible that you set up a connection pool in one web application, and use this connection pool in another web application?

(a) ☒ yes (b) no

4. When you use the Java connection pooling technology, can you create multiple data sources from one web application?

(a) ☒ yes (b) no

5. In your JSP, suppose you have the following line,

```
<c:set target="${book}" property="isbn" value="123456789" />
```

Then the named variable `${book}` must be a bean.

(a) true (b) ☒ false

6. Which of the following EL expressions NEVER throws an exception?

- (a) `${mybean.myval}`
- (b) ☒ `<c:set var="mybean" value="${myval}" />`
- (c) `<c:set target="${mybean}" property="myprop" value="${myval}" />`

7. Assume that the cookies are *disabled* at the client side. We need to use the *URL rewriting* to use the session. The only way that we can do URL rewriting is in servlets.

(a) true (b) ☒ false

8. Other than using the `<c:remove>` tag to *remove an attribute* in a JSP, do you have some other way to do the same thing in this JSP?

(a) ☒ yes (b) ☐ no

9. When we use the Java *connection pooling* technology, which of the following corresponds to a *data source*?

(a) ☒ a database connection factory (b) ☐ a database connection session
(c) ☐ a database connection object

10. In order to *look up* a JNDI resource in a Java program, what Java object should be used?

Ans: `InitialContext`

11. If you use the `<c:remove>` tag to remove an attribute in a JSP, but you do not specify the `scope` attribute, then *only* the attribute in the `page` scope is removed if it exists.

(a) ☐ true (b) ☒ false

12. Is the following expression legal or not?

```
<c:set target="mybean" property="myprop" value="${myvalue}" />
```

(a) ☐ yes (b) ☒ no

13. In a Java web application, there is a servlet with url pattern `calculate`. Now we need to create a hyperlink to call this servlet. Note that this hyperlink could be in any JSP page in the web application. Which of the following ways is the *best* for this situation?

(a) `Prime Factorization`

(b) `Prime Factorization`

(c) `<a href="<c:url value='calculate' />">Prime Factorization`

(d) ☒ `<a href="<c:url value=' /calculate' />">Prime Factorization`

14. When we use the Java connection pooling technology, which of the following is a Java interface?

- (a) ☒ DataSource (b) InitialContext

15. In a JSP, we want to set a new value to an attribute. Which of the following ways is the *best*?

- (a) `<c:set var="foo" value="<c:out value='${somevalue}' />" />`
(b) `<c:set var="foo" value="${somevalue}" />`
(c) `<c:set var="foo">${somevalue}</c:set>`
(d) ☒ `<c:set var="foo">`
 `<c:out value="${somevalue}" default="anothervalue" />`
 `</c:set>`

16. Which of the following expressions does not have any error? (Choose all that apply.)

- (a) `<c:set var="${myobj}" value="myval" />`
(b) ☒ `<c:set var="myobj" value="myval" />`
(c) `<c:set target="myobj" property="myprop" value="myval" />`
(d) ☒ `<c:set target="${myobj}" property="myprop" value="myval" />`

17. In the following expression,

```
<c:set target="${myobj}" property="myname" value="${myvalue}" />
```

if we know that `${myobj}` is an object that is NOT null, then the above line may still throw an exception sometimes.

- (a) ☒ true (b) false

18. In a Java web application, there is a servlet with url pattern `calculate`. Now we need to create a hyperlink to call this servlet. Which of the following links would *never* work?

- (a) `Prime Factorization`
(b) ☒ `Prime Factorization`
(c) `<a href="<c:url value='calculate' />">Prime Factorization`
(d) `<a href="<c:url value='/calculate' />">Prime Factorization`

19. If in a JSP there are the following two lines,

```
<c:set var="color" value="&lt;i&gt;red&lt;/i&gt;" />
<c:set var="newcolor"><c:out value="\${color}" /></c:set>
```

when you display the EL expression `\${newcolor}`, what will you see?

(a) red (b) *red* (c) `<i>red</i>` (d) `√ <i>red</i>`

20. In a Java web application, when we send the parameters to the server, we want to do the *URL encoding* on the parameter values. Which of the following ways should we use?

(a) `Prime Factorization`

(b) `<a href="<c:url value=' /calculate?pr=\${pr}' />">
 Prime Factorization
`

(c) `√ <a href="<c:url value=' /calculate'>
 <c:param name='pr' value='\${pr}' />
 </c:url>">
 Prime Factorization
`