**1. What will be the result of running the following jsp file taking into account that the Web server has just been started and this is the first page loaded by the server?  
<html><body>  
<%= request.getSession(false).getId() %>  
</body></html>  
Select one answer from the following.**

* + 1. It will not compile
    2. **It will print the session id**
    3. It will produce a NullPointerException as the getSession(false) method's call returns null, cause no session had been created.
    4. It will produce an empty page.

2. **Consider the following JSP page source:  
1) <%@ page import=”java.io.\*”%>  
2) <html>  
3) <body>  
4) <%  
5) PrintWriter out=response.getWriter();  
6) out.write(“P”);  
7) %>  
8) <%out.write(“Q”);%>  
9) </body>  
10)</html>  
Which two of the following are true statements about the above code?**

1. “P” will be written to the response, followed by “Q”
2. Only “Q” will be written to the response
3. The page has a compilation error because of a directive syntax error
4. **In jsp technology it is a bad idea to get hold of the PrintWriter directly from the response**

e) Unable to compile class for JSP

3. **Consider the following JSP code:  
  
<%@ page language=”java” %>  
<%@ page import=”java.util.\*” %>  
<html>  
<body>  
<h1>Welcome</h1>  
<%! Public void jspInit()  
{  
System.out.printn(“First half of jspInit()”);  
%>  
<% new Date()%>  
<%! System.out.println(“second half of jspInit()”);  
}  
%>  
</body>  
</html>  
  
Which one of the following will be the correct outcome of attempting to access the above JSP for the second time?**

1. Translation error(HTTP response code of 500)
2. Page not found error(HTTP response code of 404)
3. Web page returned showing a heading and the current date; two lines of output written to the server log
4. Web page returned showing “First half of jspInit(),” “Second half of jspInit(),” a heading, and the current date
5. Web page returned showing a heading and the current date

4. **Consider the following JSP code:  
  
<%@page language=”java”%>  
<html>  
<body>  
  
<%! int x;%>  
<%! public void jspDestroy()  
{  
System.out.println(“self-destructing”);  
}%>  
<%!  
public void jspInit()  
{  
System.out.println(<%= x %>);  
}%>  
</body>  
</html>  
  
Which one of the following is a valid reason for the above JSP failing to translate and compile?**

1. **Expression embedded in declaration**
2. Data member x not initialized before use
3. Local variable x not initialized before use
4. Placement of jspDestroy() method before jspInit() method
5. The page actually compiles and translates without any problem

5. **What would be the output of attempting to access the following JSP page?  
(Select two answers)  
  
<%@ page language=”java”%>  
<html>  
<body>  
  
<%! Public void \_jspService(HttpServletRequest request, HttpServletResponse response)  
{  
out.write(“A”);  
}%>  
  
<%out.write(“B”);%>  
  
</body>  
</html>**

1. **Cannot resolve symbol compilation error**
2. “A” is output to the response
3. “B” is output to the response
4. “A” is output to the response before “B”
5. **Duplicate method, compilation error**

6. **Consider the following JSP page:  
  
<html>  
<body>  
<%!public String methodA()  
{  
return methodB();  
}  
%>  
<%!public String methodB()  
{  
return methodC();  
}  
%>  
<% public String methodC()  
{  
return “method c is returned”;  
}  
%>  
<h2><%=methodA()%></h2>  
</body>  
</html>  
  
Which one of the following is the result of attempting to access the above JSP page?**

1. “method c is returned” is output to the resulting web page.
2. **A translation error occurs**
3. A runtime error occurs.
4. The text between the <h1></h1> html tags appears, followed by a java stact trace
5. The web page is blank

7. **Choose one statement from the following that best describes the relationship between JSP and servlets.**

1. Servlets are built on JSP semantics and all servlets are compiled to JSP pages for runtime usage.
2. JSP and servlets are unrelated technologies.
3. Servlets and JSP are competing technologies for handling web requests. Servlets are being superseded by JSP, which is preferred. The two technologies are not useful in combination.
4. **JSPs are built on servlet semantics and all JSPs are compiled to servlets for runtime usage**.

7. **Which three of the following are correct Page Directives?**

1. **<%@ page import="java.io.\*,javax.naming.\*" %>**
2. <%@ page errorpage=true %>
3. **<%@page import=”java.io.File”%>  
   <%@page import=”java.util.\*”%>**
4. <%@include file="/portal/banner.jsp"%>
5. <jsp:include page="/portal/header.jsp" />

8. **Which one of the following gives the correct sequence of steps involved in JSP lifecycle?**

1. jspinit(),jspdestory(),\_jspservice(),translation,compilation,load class,create an instance
2. jspinit(),\_jspservice(),jspdestory(),translation,compilation,load class,create an nstance
3. **translation,compilation,load class,create an instance,jspinit(),\_jspservice(),jspdestory()**
4. translation,compilation,create an instance,load class jspinit(),jspdestory(),\_jspservice()

9**. Which one of the following implicit variables should be used by a jsp page to access a page initialization parameter?**

1. pageContext
2. application
3. **config**
4. context
5. page

10. **Which three of the following will compile and execute without error in a JSP page?**

1. **<%! public String cat(String word1, String word2){ return word1 + " " + word2; } %>**
2. <% <!-- out.print("hello"); --> %>
3. **<% System.out.println("hello"); %>**
4. <%! System.out.println("hello"); %>
5. **<%="Marcus Green" %>**

11. **Which two of the following statements are true?**

1. **The jspInit method has access to the ServletConfig and ServletContext objects.**
2. The jspInit method is called before each time \_jspService is called
3. **The jspInit method is called once and only once for a servlet instance**

An overridden jspInit method will not be called by the container

12. **. Which one of the following methods is defined by the JSP engine?**

1. jspInit()
2. \_jspService()
3. \_jspService(ServletRequest, ServletResponse)
4. \_**jspService(HttpServletRequest, HttpServletResponse)**
5. jspDestroy()

13. **Which two of the following will evaluate to true?**

1. **page == this**
2. pageContext == this
3. out instanceof ServletOutputStream
4. **application instanceof ServletContext**
5. out instanceof Exception Class

14. **Given the following code:  
  
package com.smilejava;  
public class JobBean {  
 private String chef,waiter,cleaner;  
 public JobBean() {  
 chef="jim";  
 waiter="bob";  
 cleaner="fred";  
 }  
 public void setChef(String chef){  
 this.chef=chef;  
 }  
 public void setWaiter(String waiter){  
 this.waiter=waiter;  
 }  
 public void setCleaner(String cleaner){  
 this.cleaner=cleaner;  
 }  
 public String getJobs(){  
 return chef+waiter+cleaner;  
 }  
}  
  
And the following JSP page that uses the code:  
  
<jsp:useBean id="j" class="com.smilejava.JobBean"/>  
<jsp:setProperty name="j" property ="\*"/>  
<jsp:getProperty name="j" property="jobs" />  
<jsp:setProperty name="j" property="waiter" param="a"/>  
<jsp:setProperty name="j" property="cleaner" param="b"/>  
<jsp:setProperty name="j" property="chef" param="c"/>  
<jsp:getProperty name="j" property="jobs" />  
  
What will be output by that JSP code when invoked with the query string  
?a=tom&b=dick&c=harry  
  
Select one answer from the following.**

1. fredjimbob harrytomdick
2. jimbobfred tomdickharry
3. harrytomdick jimbobfred
4. **jimbobfred harrytomdick**

15. **Consider the following code contained in a file named this.jsp:   
  
<html><body>  
<jsp:useBean id="address" class="AddressBean" />  
<jsp:setProperty name="address" property="\*" />  
<%@ include file="that.jsp" %>  
</body></html>  
  
Which one of the following is true about the AddressBean instance declared in the above code?**

1. The bean instance will not be available in that.jsp
2. The bean instance may or may not be available in that.jsp, depending on the threading model implemented by that.jsp
3. **The bean instance will be available in that.jsp, and the that.jsp page can print the values of the bean’s properties using <jsp:getProperty />.**
4. The bean instance will be available in that.jsp, and that.jsp page can print  
   the values of the bean’s properties using <jsp:getProperty /> only if that.jsp  
   also contains a <jsp:useBean/> declaration identical to the one in this.jsp and  
   before using <jsp:getProperty/>.

16. **Which three of the following options correctly declare a useBean tag ?**

1. **<jsp:useBean id="user" class="myco.util.User" />**
2. **<jsp:useBean id="user" type="myco.interfaces.IUser" />**
3. <jsp:useBean name="user" class="myco.util.User" />
4. <jsp:useBean id="user" beanName="myco.User" class="myco.util.User" />
5. **<jsp:useBean id="user" beanName="myco.User" type="myco.interfaces.IUser" />**

17. **A Java bean with a property color is loaded using the following statement:  
  
<jsp:usebean id="fruit" class="Fruit"/>   
What is the effect of the following statement?   
<jsp:setproperty name="fruit" property="color"/>   
  
Select one answer from the following.**

1. An error gets generated because the value attribute of setAttribute is not defined.
2. The color attribute is assigned a value null.
3. The color attribute is assigned a value "".
4. **If there is a non-null request parameter with name color, then its value gets assigned to color property of Java Bean fruit.**

18. **Which one of the following gets or sets the bean in the ServletContext container object?**

1. <jsp:useBean id="address" class="AddressBean" />
2. **<jsp:useBean id="address" class="AddressBean" scope="application" />**
3. <jsp:useBean id="address" class="AddressBean" scope="servlet" />
4. <jsp:useBean id="address" class="AddressBean" scope="session" />
5. None of the listed options

19. **Consider the following JSP code snippet:  
  
EmployeeBean harry = (EmployeeBean)request.getAttribute("harry");  
if (harry == null)  
{  
harry = new EmployeeBean();  
request.setAttribute("harry", harry);  
}  
  
Which one of the following is an equivalent action code for the above code?**

1. <jsp:declareBean id = "harry" class = "EmployeeBean" scope = "request" />
2. <jsp:createBean id = "harry" class = "EmployeeBean" />
3. <**jsp:useBean id = "harry" class = "EmployeeBean" scope = "request" />**
4. <jsp:useBean id = "harry" class = "EmployeeBean" />

20. **A JSP page has the following useBean declaration that references a bean called Person.   
The person class has a private field called firstname and an appropriate getter (accessor) method for retrieving the value of that field.  
<jsp:useBean id="person" type="com.exam.Person" class="com.exam.Person" scope="session" />  
  
Which one of the following is the correct syntax for a getProperty tag to retrieve the value of the instance of Person?**

1. **<jsp:getProperty name="person" property="firstname"/>**
2. <jsp:getProperty name="person" property="getFirstname"/>
3. <jsp:getProperty id="person" property="firstname"/>
4. <jsp:getProperty name="person" property="firstname" class="com.exam.Person"/>
5. <jsp:getProperty name="person" property="firstname" scope="session"/>

21. **Which two of the following are valid within a JSP page?**

1. **<%@ taglib uri="/richjava\_tag" prefix="question" %>**
2. <%@ taglib uri="/richjava" class="question" %>
3. <%@ taglib uri="/customtag" type=com.javarich.customtag prefix="question" %>
4. **<%@ taglib uri="http://java.sun.com/jstl/core\_rt" prefix="c" %>**

22. **Consider the following:  
  
<taglib>  
<tag>  
<name>heading</name>  
<tagclass>coreservlets.tags.HeadingTag</tagclass>  
<attribute>  
<name>bgColor</name>  
<required>true</required>**

**<rtexprvalue>true</rtexprvalue>  
</attribute>  
<attribute>  
<name>color</name>  
<required>false</required>  
</attribute>  
<attribute>  
<name>style</name>  
<required>true</required>  
<rtexprvalue>false</rtexprvalue>  
</attribute>  
  
...  
</tag>  
</taglib>  
  
Which two of the following statements can be inferred from the above code?**

1. **Attribute value of bgcolour is required for the tag.**
2. Attribute value of bgcolour will be retrieved from the parent tag.
3. **Attribute value of colour is optional for the tag.**
4. Attribute value of style required for the tag and will be given by the user.
5. Taglib tag can have only a maximum of 15 tags.

23. **. Which two of the following statements are true about taglibs tags?**

1. taglibs tags within a page can have the same prefix so long as the uri value is different
2. **the prefix attribute is mandatory**
3. the prefix string is arbitrary, there are no reserved strings
4. **taglibs can be deployed within a jar file**
5. the uri value must point to the location of the taglib file

24. **You are given a tag library that has:   
  
1. A tag named getMenu that takes an attribute 'subject' which can be a dynamic value.  
2. A tag named getHeading that takes an attribute 'report'.  
  
Which three of the following are correct uses of the above library?**

1. **<myTL:getMenu subject="Finance"/>**
2. <myTL:getMenu subject="<myTL:getHeading report=1/>"/>
3. <myTL:getMenu subject='<myTL:getHeading report="1"/>'/>
4. **<% String subject="HR";%> <myTL:getMenu subject="<%=subject%>"/>**
5. **<myTL:getHeading report="2"/>**

25 **. Consider the following use of the tag<mytags:convert>:  
  
<mytags:convert currency=”${param.cur}”> <%=amount%> </mytags:convert>  
(Assume that the tag translates and executes correctly)  
  
Which three of the following statements must be true about its setup and use?**

1. **The taglib declaration has a prefix of “mytags”.**
2. **In the TLD, the tag’s body content element has a value of JSP**
3. In the TLD, the tag’s name element has the value of currency
4. In the TLD, the tag’s currency attribute has the required element set to true.
5. **In the TLD, the tag’s currency attribute has the rtexprvalue element set to true.**

26. **Which two of the following things may happen in the translation phase of a JSP page?**

1. Execution of \_jspService() method.
2. Execution of jspInit() method.
3. **Creation of the servlet class corresponding to the JSP file**
4. Instantiation of the servlet class.
5. **Loading of the servlet class.**

27. **Which one of the following is an Equivalent in jsp of printWriter in servlet?**

1. **jspWriter**
2. jspPrintWriter
3. jspOutputStream
4. jspBufferedStream

28. **Which two of the following are considered thread safe?**

1. class variables.
2. context attributes.
3. **local variables**
4. **request attributes**
5. Response attributes

29. **Consider the following sources for two JSP pages:  
  
Source for a.jsp  
<% @ page buffer = “none” autoFlush = “true”%>  
<jsp:forward page=”c.jsp”/>  
  
Source for b.jsp:  
<%@ page autoFlush = “true” %>**

**<jsp:forward page = “c.jsp”/>  
  
(Assume that “c.jsp” is available in the same web application directory as a.jsp and b.jsp)  
  
Which two of the following are possible outcomes of requesting each of the above JSP pages in turn?**

1. Neither of the JSP pages translate
2. a.jsp translates, b.jsp does not translate
3. b.jsp translates, a.jsp does not translate
4. Both JSP pages translate
5. **b.jsp runs successfully, a.jsp does not**

30.  **Consider the following code written in a servlet:  
RequestDispatcher rd = request.getRequestDispatcher("world.jsp");  
rd.forward(request, response);  
Which one of the following is the JSP equivalent of the above code?**

1. **<jsp:forward page="world.jsp"/>**
2. <jsp:action.forward page="world.jsp"/>
3. <jsp:directive.forward page="world.jsp"/>
4. <%@ forward file="world.jsp"%>
5. <%@ forward page="world.jsp"%>

**31. Consider the following JSP page sources:  
  
<%-- file one.jsp begins here--%>  
<%@page import =”java.util.\*” contentType=”text/html” session=”true”%>  
<html>  
<body>  
<%ArrayList al=new ArrayList(0);  
al.add(“Jack Russell”);  
al.add(“Labrador”);  
al.add(“Great Dane”);%>  
<@include file=”two.jsp”%>  
</body>  
</html>  
  
<%--file two.jsp begins--%>  
<%@page import=”java.util.\*” contentType=”text/html”%>  
<table>  
  
<%for (int i=0;i<al.size();i++) {%>  
<r><td> <%=al.get(i) %></td></tr>  
<%}%>  
  
</table>  
<%-- two.jsp ends here--%>  
  
Which two of the following statements are true about the above two JSP page sources, given that client is requesting one.jsp?**

1. Translation will fail because the import attribute of the page directive is repeated across the page source.
2. **The order of the import and contentType attributes in both JSP page sources is immaterial.**
3. **Removing the Session attribute from one.jsp will make no difference to the generated servlet code**
4. The local variable al in two.jsp will not be recognized
5. The import,contentType,and session attributes should appear in separate page directives.

32. **Consider the following scenario:  
  
Statement A: <jsp:include/> standard action inserts the response of a jsp page at rutime.  
Statement B: include directive inserts the source of a jsp page at translation time.  
  
Which one of the following is correct with respect to the above?**

1. Statement A is true and B is false
2. Statement A is false and B is false
3. **Statement A is true and B is true**
4. Statement A is false and B is true

33. **Which one of the following is a valid method that will not be called on a custom tag handler if the tag is declared as an empty tag?**

1. doStartTag
2. doBodyTag
3. **doAfterBody**
4. doEndTag
5. doBeforeBody

34. **Which two of the following types of objects can be returned by PageContext.getOut()?**

1. An object of type ServletOutputStream
2. An object of type HttpServletOutputStream
3. **An object of type JspWriter**
4. An object of type HttpJspWriter
5. **An object of type BodyContent**

35.  **Which three of the following tags are valid tags that can be used in a JSP page? (You can assume that the tag library is correctly declared in the jsp page with a prefix of “mytags” and tag has an attribute isbn)**

1. <mytags:book/>
2. <mytags:book></mytags:>
3. <**mytags:book isbn=”${isbn}”/>**
4. **<mytags:book isbn=”1861979258”/>**
5. **<mytags:book isbn=”${isbn}”>keep smiling!..</mytags:book>**