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Marks	47.00/50.00
Grade	9.40 out of 10.00 (94%)

Question **1**

Correct

Mark 1.00 out of 1.00

In the web deployment descriptor, the tag of tag is used for _____

- ☐ a. applying the filter on the servlet instance
- ☒ b. accessing or calling the servlet instance
- ☐ c. informing server about the location of servlet in web application directory
- ☐ d. applying the security on the servlet instance



The correct answer is: accessing or calling the servlet instance

Question **2**

Correct

Mark 1.00 out of 1.00

_____ provides a way to identify a user across more than one page request or visit to a Web site and to store information about that user.

- ☐ a. Hidden Field
- ☐ b. URL Rewrite
- ☒ c. Session management
- ☐ d. Cookie



The correct answer is: Session management

Question 3

Correct

Mark 1.00 out of 1.00

What is servlet?

- ☐ a. Servlet is a class that extends the capabilities of the servers and responds to the incoming
- ☐ b. Servlet is an interface that must be implemented for creating any Servlet.
- ☒ c. Servlet is an application deployed on the server to create a dynamic web page
- ☐ d. Servlet is a web component that is deployed on the server to create a dynamic web page



The correct answer is: Servlet is an application deployed on the server to create a dynamic web page

Question 4

Correct

Mark 1.00 out of 1.00

Which method in Action class is executed when request comes? Choose 2

- ☐ a. Any method define by action mapping.
- ☐ b. Only execute() method
- ☒ c. execute() is calling by default
- ☒ d. Any method with no argument and define by action mapping



The correct answers are: execute() is calling by default, Any method with no argument and define by action mapping

Question 5

Correct

Mark 1.00 out of 1.00

In the request life cycle of Struts 2, which component invokes the Interceptors to apply the common functionalities?

- ☐ a. FilterDispatcher
- ☒ b. ActionInvocation
- ☐ c. ActionMapping
- ☐ d. ActionServlet



The correct answer is: ActionInvocation

Question 6

Correct

Mark 1.00 out of 1.00

Which of the following code is used to get an attribute in a HTTP Session object in servlets?

- ☐ a. session.updateAttribute(String name)
- ☒ b. session.getAttribute(String name)
- ☐ c. session.alterAttribute(String name)
- ☐ d. session.setAttribute(String name)



The correct answer is: session.getAttribute(String name)

Question 7

Correct

Mark 1.00 out of 1.00

Which of the following is correct about PreparedStatement?

- ☒ a. Prepared statements reuse the same execution plan for.
- ☐ b. Prepared statements reuse the same execution plan for different arguments rather than creating a new execution plan every time
- ☐ c. Prepared statements use bind arguments, which are sent to the database engine.
- ☐ d. Prepared statements offer better performance, as they are pre-compiled



The correct answer is: Prepared statements reuse the same execution plan for.

Question 8

Correct

Mark 1.00 out of 1.00

Which of the following statements about the Servlet is false?

Select one:

- ☐ a. Servlets are portable
- ☒ b. Initialization code in servlets is executed every time the program is made to run
- ☐ c. None of the others
- ☐ d. Servlets are easy to use
- ☐ e. All of the others



The correct answer is: Initialization code in servlets is executed every time the program is made to run



Question **9**

Correct

Mark 1.00 out of 1.00

You are given a tag library that has a tag named printReport. This tag may accept an attribute, department, which cannot take a dynamic value. Which of the following are correct uses of this tag? (Select two)

Select one or more:

- ☒ a. `<mylib:printReport/>` 
- ☐ b. `<mylib:printReport> <jsp:attribute name="department" value="finance" /> </mylib:printReport>`
- ☐ c. `<mylib:printReport attribute="department" value="finance"/>`
- ☐ d. `<mylib:printReport attribute="department" attribute-value="finance"/>`
- ☒ e. `<mylib:printReport department="finance"/>` 


The correct answers are: `<mylib:printReport/>`, `<mylib:printReport department="finance"/>`

Question **10**

Correct

Mark 1.00 out of 1.00

CRUD stands for:

- ☐ a. create, read, upload, and download
- ☐ b. concurrency, ready, update, and dependency
- ☒ c. create, read, update, and delete 
- ☐ d. connect, read, update, and delete

The correct answer is: create, read, update, and delete

Question 11

Correct

Mark 1.00 out of 1.00

_____ includes a static file in a JSP file, parsing the file's JSP elements (choose the most correct one)

Select one:

- ☐ a. <jsp:include>
- ☐ b. import directive
- ☐ c. <jsp:useBean>
- ☒ d. include directive
- ☐ e. <jsp:forward>



The correct answer is: include directive

Question 12

Incorrect

Mark 0.00 out of 1.00

Which symbol is used for parameter substitution in PreparedStatement?

- ☒ a. %
- ☐ b. *
- ☐ c. ?
- ☐ d. +



The correct answer is: ?

Question 13

Incorrect

Mark 0.00 out of 1.00

A JSP page needs to generate an XML file. Which attribute of page directive may be used to specify that the JSP page is generating an XML file.

- ☐ a. <%@page contentType = "text/html">
- ☒ b. <%@page contentType = "html/xml">
- ☐ c. <%@page contentType = "text/xml">
- ☐ d. <%@page contentType = "xml">



The correct answer is: <%@page contentType = "text/xml">

Question 14

Correct

Mark 1.00 out of 1.00

Please correct the code as bellowing, supposed that the parameters in sql has String value.

```
public void addStudent(Student student) {  
    String sql = "INSERT INTO studentTBL(first_name, last_name, email)\n"  
        + "VALUES (?, ?, ?)";  
    ConnectDB db = ConnectDB.getInstance();  
    Connection con;  
    try {  
        con = db.openConnection();  
        PreparedStatement statement = con.prepareStatement(sql);  
        _____(1, student.getFirstName());  
        _____(2, student.getLastName());  
        _____(3, student.getEmail());  
        statement.execute();  
        statement.close();  
        con.close();  
    } catch (Exception ex) {  
        Logger.getLogger(StudentDAO.class.getName()).log(Level.SEVERE, null, ex);  
    }  
}
```

- ☒ a. statement.setString
- ☐ b. statement.setValueString
- ☐ c. statement.setString()
- ☐ d. statement.setTypeCastString



Your answer is correct.

The correct answer is:

statement.setString

Question 15

Correct

Mark 1.00 out of 1.00

Which of these characteristics of a filter is true?

- ☐ a. An authentication filter tracks the activities of users of a Web application
- ☐ b. Filters used to store session
- ☒ c. A filter is an object that is invoked at the preprocessing and postprocessing of a request.
- ☐ d. A logging and auditing filter allow users to log in to a Web application



The correct answer is: A filter is an object that is invoked at the preprocessing and postprocessing of a request.

Question **16**

Correct

Mark 1.00 out of 1.00

Which of the following is not component of MVC architecture?

- ☒ a. XML
- ☐ b. Model
- ☐ c. Controller
- ☐ d. View



The correct answer is: XML

Question **17**

Correct

Mark 1.00 out of 1.00

What is NOT CORRECT about JSP Filter

- ☒ a. Init method is called by the JSP Filter to indicate to a filter
- ☐ b. Filter manipulate responses from server before they are sent back to the client.
- ☐ c. doFilter method is called by the container each time a request/response pair is passed through the chain due to a client request for a resource at the end of the chain
- ☐ d. Filter intercept requests from a client before they access a resource at back end.



The correct answer is: Init method is called by the JSP Filter to indicate to a filter

Question 18

Correct

Mark 1.00 out of 1.00

Suppose we have the model `CalculatorModel` class, please fill in the blank to add the value of **model** to the object request.

```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    String num1 = request.getParameter("num1");
    String num2 = request.getParameter("num2");
    String action = request.getParameter("action");
    CalculatorModel model = new CalculatorModel(Float.parseFloat(num1),
        Float.parseFloat(num2), action);
    _____ ("RS", model);
    request.getRequestDispatcher("result.jsp").include(request, response);
}
```

- ☐ a. request.setValueOf
- ☐ b. request.getRequestDispatcher
- ☒ c. request.setAttribute
- ☐ d. request.getAttribute



Your answer is correct.

The correct answer is:
request.setAttribute

Question 19

Correct

Mark 1.00 out of 1.00

What is INCORRECT about the GET method

- ☐ a. Should never be used when dealing with sensitive data
- ☐ b. is one of the most common HTTP methods.
- ☒ c. Used for sending huge amounts of information having visible in a URL.
- ☐ d. Used to request data from a specified resource.



The correct answer is: Used for sending huge amounts of information having visible in a URL.

Question **20**

Correct

Mark 1.00 out of 1.00

When a JSP page is translated, what is it turned into?

- ☐ a. Application
- ☐ b. Midlet
- ☐ c. Applet
- ☒ d. Servlet



The correct answer is: Servlet

Question **21**

Correct

Mark 1.00 out of 1.00

JSP _____ let you insert arbitrary code into the servlet's `_jspService()` method.

- ☐ a. comment
- ☐ b. custom tag
- ☒ c. scriptlets
- ☐ d. declarations



The correct answer is: scriptlets

Question **22**

Correct

Mark 1.00 out of 1.00

In a web application, Where filters are defined?

- ☐ a. Filters are defined in the ServletRequest
- ☐ b. Filters are defined in the jsp pages.
- ☐ c. Filters are defined in the ServletContext
- ☒ d. Filters are defined in the deployment descriptor file web.xml



The correct answer is: Filters are defined in the deployment descriptor file web.xml

Question **23**

Correct

Mark 1.00 out of 1.00

What is the expired time of the **cookie** if we set the value of **time** = 0.5

```
19 public static Cookie add(String name, String value, int time,
HttpServletResponse response) {
20     Cookie cookie = new Cookie(name, value);
21     cookie.setMaxAge(60 * 60 * time);
22     cookie.setPath("/");
23     response.addCookie(cookie);
24     return cookie;
26 }
```

- ☐ a. 1.800 minutes
- ☐ b. 45 minutes
- ☒ c. 30 minutes
- ☐ d. 60 minutes



Your answer is correct.

The correct answer is:

30 minutes

Question **24**

Correct

Mark 1.00 out of 1.00

When destroy() method of a filter is called?

- ☐ a. called only once at the beginning of the life cycle of a filter
- ☒ b. called only once at the end of the life cycle of a filter
- ☐ c. called after the filter has executed doFilter method
- ☐ d. called after the filter has executed



The correct answer is: called only once at the end of the life cycle of a filter

Question **25**

Correct

Mark 1.00 out of 1.00

Which of the following listeners will respond to events that a request comes to server or gets out of its scope?

- ☐ a. ServletResponseListener
- ☐ b. ServletContextListener
- ☐ c. ServletRequestAttributeListener
- ☒ d. ServletRequestListener



The correct answer is: ServletRequestListener

Question **26**

Correct

Mark 1.00 out of 1.00

Why use RequestDispatcher to forward a request to another resource, instead of using a sendRedirect?

- ☐ a. Redirects are no longer supported in the current servlet API.
- ☐ b. The RequestDispatcher does not use the reflection API.
- ☒ c. The RequestDispatcher does not require a round trip to the client, and thus is more efficient and allows the server to maintain request state.
- ☐ d. Redirects are not a cross-platform portable mechanism.



The correct answer is: The RequestDispatcher does not require a round trip to the client, and thus is more efficient and allows the server to maintain request state.

Question **27**

Correct

Mark 1.00 out of 1.00

What is the key difference between using a and HttpServletResponse.sendRedirect()?

- ☐ a. forward is a action, sendRedirect() is a method
- ☐ b. Both the same
- ☐ c. forward executes on the client while sendRedirect() executes on the server.
- ☒ d. forward executes on the server while sendRedirect() executes on the client.



The correct answer is: forward executes on the server while sendRedirect() executes on the client.

Question **28**

Correct

Mark 1.00 out of 1.00

Which attribute of @page define an jsp page to be an error page?

- ☐ a. "false"
- ☐ b. session.setAttribute("false")
- ☐ c. isErrorPage
- ☒ d. isErrorPage
- ☐ e. session.setAttribute("true")
- ☐ f. "true"



The correct answers are: isErrorPage, "true", "false"

Question **29**

Correct

Mark 1.00 out of 1.00

DriverManager.getConnection(____, ____, ____)
What is the order of parameters included?

- ☐ a. Password, URL where server runs, UserID
- ☐ b. URL where server runs; Password, UserID
- ☐ c. User ID, Password, URL where server runs
- ☒ d. URL where server runs, UserID, Password



The correct answer is: URL where server runs, UserID, Password

Question **30**

Correct

Mark 1.00 out of 1.00

Which tag is used to insert java source code in JSP?

- ☐ a. Application tag
- ☐ b. Declaration Tag
- ☒ c. Scriptlet tag
- ☐ d. Expression tag



The correct answer is: Scriptlet tag

Question **31**

Correct

Mark 1.00 out of 1.00

When compiling a project in java web, which of the following error codes is associated with the "Resource not found" message?

- ☐ a. 403
- ☐ b. 500
- ☒ c. 404
- ☐ d. 400



The correct answer is: 404

Question **32**

Correct

Mark 1.00 out of 1.00

What is the out put of this code?

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<html>
  <head>
    <title>Tag Example</title>
  </head>
  <body>
    <c:forEach var="product" begin="0" end="10" step="2">
      ${ product}
    </c:forEach>
  </body>
</html>
```

- ☐ a. var="item" begin="0" end="10" step="2"
- ☒ b. 0 2 4 6 8 10
- ☐ c. 0 1 2 3 4 5 6 7 8 9 10
- ☐ d. \${ product}



Your answer is correct.

The correct answer is:

0 2 4 6 8 10

Question **33**

Correct

Mark 1.00 out of 1.00

Suppose we have the model class `Student {private int id;}`, now to set up a link for "Update" Action in jsp page and then send the Id value of **student** object to the Servlet ***StudentControllerServlet***.

First Name	Last Name	Email	Action
TEO	Nguyen	a@b.c	Update Delete
E	F	n@f.h	Update Delete
C	Tran	c@g.t	Update Delete
D	Van	v@d.c	Update Delete

Please choose the the correct code in the space _____

```
<c:url var="tempLink" value="StudentControllerServlet">
  <c:param name="command" value="UPDATE" ></c:param>
  <c:param name="studentId" value="_____ " ></c:param>
</c:url>
```

- ☒ a. `${student.id}`
- ☐ b. `${student}`
- ☐ c. `{student.id}`
- ☐ d. `@{student.id}`



Your answer is correct.

The correct answer is:
`${student.id}`

Question 34

Correct

Mark 1.00 out of 1.00

Please choose the option in the blank _____, when the web developers want to include the value of **command** and **studentID** without being seen or modified by users when a form is submitted?

```
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <!DOCTYPE html>
9 <html>
10 <head>
11 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
12 <title>JSP Page</title>
13 </head>
14 <body>
15 <form action="StudentControllerServlet" method="GET">
16 <input type="_____" name="command" value="UPDATE">
17 <input type="_____" name="studentId" value="{THE_STUDENT.id}">
18 Name:<input type="text" name="firstName" value="{THE_STUDENT.firstName}"></td>
19 <input type="submit" value="UPDATE" class="save" />
20 </form>
21 </body>
22 </html>
```

- ☐ a. "submit" & "text"
- ☐ b. "hidden" & "text"
- ☒ c. "hidden" & "hidden"
- ☐ d. "submit" & "submit"



Your answer is correct.

The correct answer is:
"hidden" & "hidden"

Question 35

Correct

Mark 1.00 out of 1.00

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

- ☐ a. SET
- ☐ b. PUT
- ☒ c. GET
- ☐ d. POST




The correct answers are: GET, POST

Question **36**

Correct

Mark 1.00 out of 1.00

Which statements about JDBC are NOT true?

- ☐ a. It consists of a set of classes and interfaces written in the Java programming language.
- ☐ b. JDBC provides a standard API for tool/database developers and makes it possible to write database applications using a pure Java API.
- ☒ c. JDBC is a Java database system. 
- ☐ d. The combination of Java and JDBC lets a programmer write it once and run it anywhere.


The correct answer is: JDBC is a Java database system.

Question **37**

Correct

Mark 1.00 out of 1.00

Choose the statement that best describes the relationship between JSP and servlets:

- ☐ a. 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.
- ☐ b. JSP and servlets are unrelated technologies.
- ☒ c. JSPs are built on servlet semantics and all JSPs are translated to servlets for runtime usage. 
- ☐ d. Servlets are built on JSP semantics and all servlets are compiled to JSP pages for runtime usage.

The correct answer is: JSPs are built on servlet semantics and all JSPs are translated to servlets for runtime usage.

Question **38**

Correct

Mark 1.00 out of 1.00

In order to get the value from the request parameter, please choose the correct code

- ☐ a. `String theStudentId = request.getStudent("studentId");`
- ☒ b. `String theStudentId = request.getParameter("studentId");` 
- ☐ c. `String theStudentId = getParameter("studentId");`
- ☐ d. `String theStudentId = request.getID("studentId");`

The correct answer is: `String theStudentId = request.getParameter("studentId");`

Question 39

Correct

Mark 1.00 out of 1.00

In JSTL, which type of Java conditional statement is the tag similar to?

- ☐ a. when
- ☒ b. switch
- ☐ c. if
- ☐ d. foreach



The correct answer is: switch

Question 40

Correct

Mark 1.00 out of 1.00

Choose the correct JSTL statement to check whether the *emptyCart* is empty or not?

- ☒ a. `<c:if test="{emptyCart == null}">`
 `<p>Your cart is empty.</p>`
 `</c:if>`
- ☐ b. `<if test="{emptyCart == null}">`
 `<p>Your cart is empty.</p>`
 `</if>`
- ☐ c. `<c:if var="{emptyCart == null}">`
 `<p>Your cart is empty.</p>`
 `</c:if>`
- ☐ d. `<c:if var="{emptyCart == empty}">`
 `<p>Your cart is empty.</p>`
 `</c:if>`



Your answer is correct.

The correct answer is:

```
<c:if test="{emptyCart == null}">
  <p>Your cart is empty.</p>
</c:if>
```

Question **41**

Correct

Mark 1.00 out of 1.00

Which of the following is not a valid type of statement in JDBC?

- ☐ a. Statement
- ☐ b. CallableStatement
- ☒ c. QueryStatement
- ☐ d. PreparedStatement



The correct answer is: QueryStatement

Question **42**

Correct

Mark 1.00 out of 1.00

The value of session timeout in web deployment descriptor using the unit of

- ☐ a. Millisecond
- ☐ b. Second
- ☐ c. Hour
- ☒ d. Minute



The correct answer is: Minute

Question **43**

Correct

Mark 1.00 out of 1.00

When compiling a project in java web, which of the following error code indicates an error inside the HTTP server which prevents it from fulfilling the request?

- ☐ a. 400
- ☐ b. 404
- ☐ c. 403
- ☒ d. 500



The correct answer is: 500

Question **44**

Correct

Mark 1.00 out of 1.00

What is the purpose of this code?

```
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <!DOCTYPE html>
9 <html>
10 <head>
11 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
12 <title>JSP Page</title>
13 <jsp:useBean id="user" class="model.User" scope="session">
14 </jsp:useBean>
15 <jsp:setProperty name="user" property="*" />
16 </head>
17 <body>
18 <hr>
19 First Name: <jsp:getProperty name="user"
20 property="firstName"></jsp:getProperty>
21 </br>
22 Last Name: <jsp:getProperty name="user"
23 property="lastName"></jsp:getProperty>
24 </body>
25 </html>
```

- ☐ a. Delete properties of a bean object **user**
- ☐ b. Update properties of a bean object **user**
- ☒ c. Get properties of a bean object **user**
- ☐ d. Set properties of a bean object **user**



Your answer is correct.

The correct answer is:

Get properties of a bean object **user**

Question **45**

Incorrect

Mark 0.00 out of 1.00

What is the purpose of this code?

```
72  protected void doPost(HttpServletRequest request, HttpServletResponse response)
73      throws ServletException, IOException {
74      String username = request.getParameter("username");
75      String password = request.getParameter("password");
76      if (username.equals("admin") && password.equals("abc123")) {
77          RequestDispatcher rd = request.getRequestDispatcher("admin/index.jsp");
78          rd.forward(request, response);
79      }}
```

- ☒ a. Checking whether the username equals "admin" and password equals "abc123" or not. If yes, forward the requests to admin-index.jsp ✗
- ☐ b. Checking whether the username equals "admin" and password equals "abc123" or not.
- ☐ c. Setting the value of username = "admin" and password = "abc123"
- ☐ d. Checking whether the username equals "admin" and password equals "abc123" or not. If yes, forward the requests to index.jsp

Your answer is incorrect.

The correct answer is:

Checking whether the username equals "admin" and password equals "abc123" or not. If yes, forward the requests to index.jsp

Question **46**

Correct

Mark 1.00 out of 1.00

What is the output?

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<html>
  <head>
    <title>Tag Example</title>
  </head>
  <body>
    <c:set var="name" value="Final Test"/>
    <c:out value="${name}" default="StudyTonight" />
  </body>
</html>
```

- ☒ a. Final Test
- ☐ b. StudyTonight
- ☐ c. Final Test StudyTonight
- ☐ d. StudyTonight Final Test



Your answer is correct.

The correct answer is:

Final Test

Question **47**

Correct

Mark 1.00 out of 1.00

Which of the following SQL options is suitable for using PreparedStatement?

- ☐ a. SQLSetConnectOption(conn, SQL AUTOCOMMIT, 0)
- ☐ b. insert into departmentTBL values(x,x,x)
- ☐ c. SQLTransact(conn, SQL ROLLBACK)
- ☒ d. insert into departmentTBL values(?,?,?)



The correct answer is: insert into departmentTBL values(?,?,?)

Question **48**

Correct

Mark 1.00 out of 1.00

Please choose to correct statement to include a header.jsp page in to an jsp page?

- ☐ a. <jsp:includes page="/includes/header.jsp" />
- ☐ b. < page="/includes/header.jsp" />
- ☒ c. <jsp:include page="/includes/header.jsp" />
- ☐ d. <include page="/includes/header.jsp" />



Your answer is correct.

The correct answer is:

<jsp:include page="/includes/header.jsp" />

Question **49**

Correct

Mark 1.00 out of 1.00

Which method is used to perform DML statements in JDBC?

- ☒ a. executeUpdate()
- ☐ b. executeQuery()
- ☐ c. execute()
- ☐ d. executeResult()



The correct answer is: executeUpdate()

Question **50**

Correct

Mark 1.00 out of 1.00

Which method among the following options belongs to HttpSessionAttributeListener?

- ☐ a. public void removeValue(java.lang.String name)
- ☒ b. public void attributeAdded(HttpSessionBindingEvent se)
- ☐ c. public void setAttribute(java.lang.String name, java.lang.Object value)
- ☐ d. public void setMaxInactiveInterval(int interval)



The correct answer is: public void attributeAdded(HttpSessionBindingEvent se)

