

1. You are developing dynamic web application using JSP. Which attribute of page directive specifies the list of classes imported in the JSP file?

Select one:

- a.session
- b.extends
- c.import****
- d.language

2. Consider the following statements:

Statement A: The PreparedStatement object enables you to execute parameterized queries.

Statement B: The SQL query can use the placeholders which are replaced by the INPUT parameters at runtime.

Which of the following option is True with respect to the above statements?

Select one:

- a.Statement A is True and Statement B is False.
- b. Statement A is False and Statement B is True.
- c.Both Statements A and B are False.
- d.Both Statement A and Statement B are True.****

3. DIV tag creates linebreaks similar to paragraph tags

State True or False:

Answer: 'True'

4. What is the syntax of Expression Language in a JSP page?

Select one:

- a.\${"expr"}
- b.#{expr}
- c.\${expr}****
- d.\$[expr]

5. Which of the following keywords ensure that a method cannot be overridden?

Select one:

- a.protected

- b.static
- c.abstract
- d.final****

6. What will be the output for following code?

```
public class Compare
{
    public static void main(String[] args)
    {
        String s=new String("abc");
        String s1=new String("abc");
        System.out.println(s.compareTo(s1));
    }
}
```

Select one:

- a.True
- b.False
- c.None of the listed options
- d.Zero("0")****

7. When comparable interface is used which method should be overridden?

Select one:

- a.compareTo****
- b.comparator
- c.compareWith

d.compare

8.Request implicit object is which of the following type?

Select one:

a.HttpServletRequest****

b.HttpRequest

c.ServletRequest

d.ServletHttpRequest

9."Variables in Java Script should be declared with data types".

False

10.What will be the output of the following code snippet?

```
<% page language="java"%>
```

```
<html>
```

```
<head></head>
```

```
<body>
```

```
<%java.util.Date.now=new java.util.Date();%>
```

```
<H1><%=now.getHours()%>;<%=now.getMinutes()%>;<%=now.getSeconds()%>></H1>
```

```
</body>
```

```
</html>
```

Select one:

a.It will display the date and time.

b.It will display the date as mm:dd:yy.

c.It will display the current time as hh:mm:ss.****

d.It will display the time as hh/mm/ss.

11.Consider Vijay is developing a web page using HTML.Which method he can use for sending large amount of data on submitting the form?

I.POST

II.GET

Select one:

a.II

b.both I & II

c.None of the listed options

d.I****

12.Whenever a request goes from client to server some additional information other than the request is also passed to the server.This additional information is in the form of a_____.

Select one:

a.application ID

b.Session ID****

c.header

d.footer

14.Which of the following is not an attribute of meta tag?

Select one:

a.name

b.value****

c.http-equiv

d.content

15. Which of the following variable represents the uncaught throwable object that resulted from a call to the error page?

Select one:

a. Exception****

b. Request

c. Application

d. Config

16. Under which two circumstances do you design database triggers?

Select one or more:

a. To guarantee that when a specific operation is performed, related actions are performed

b. For centralized, global operations that should be fired for the triggering statement, regardless of which user or application issues the statement. ****

c. To replicate built-in constraints in the Oracle server such as primary key and foreign key. ****

d. To duplicate the functionality of other triggers.

17. What will be the output for following code?

```
Import java.util.*;
```

```
public static String Tokens
```

```
{
```

```
public static void main(String[] args)
```

```
{
```

```
String s="India is a\n developing country";
```

```
StringTokenizer o=new StringTokenizer(s);
```

```
System.out.println(o.countTokens());  
}  
}
```

Select one:

a. None of the listed options

b. 5****

c. 4

d. 6

18. What will be the output of following code?

```
try  
{  
System.out.println("Executing try");  
}  
  
System.out.println("After try");  
catch(Exception ex)  
{  
System.out.println("Executing catch");  
}
```

Select one:

a. Executing try Runtime Exception

b. runtime Exception

c. Executing try After try Executing catch

d. Compile Time Execution****

19. Given a filter class definition with this method:

21. `public void doFilter(ServletRequest request,`

22. `ServletResponse response,`

23. `FilterChain chain)`

24. `throws ServletException, IOException{`

25. `//Insert code here`

`}`

Which should you insert at line 25 to properly invoke the next filter in the chain, or the target servlet if there are no more filters?

Select one:

a. `request.forward(request,response);`

b. `request.doFilter(request,response);`

c. `chain.doFilter(request,response);****`

d. `chain.forward(request,response);`

20. A filter configuration object used by a servlet container to pass information to a filter during initialization.

True

21. Consider you are developing shopping cart application you have to store details of items purchased by the each customer in intermediate memory before storing purchase details in actual database permanently note that number of different items purchased by customer is not definite it may vary. How do you implement given requirement using java considering best performance of the application?

Select one:

a. None of the listed options

b. Implement using file API's

c.Implement using Collection API's****

d.Implement using Arrays

22.What is the use of Attributes in HTML tags?

Select one:

a.Attribute is a type of tag

b.None of the listed options

c.Provides additional behaviour to the tag****

d.Which represents the content to be displayed in the page

23.In which of these following getAttribute() and setAttribute() method has defined?

Select one or more:

a.HttpSession****

b.ServletResponse

c.HttpListener

d.ServletRequest****

24.XYZ company database has Customer personal information View table using which customer can update their personal information like address,phone number fields when user updates address and phone number fields in the view table. We need to take care of updating address and phone number field in underlying database base table automatically . what right solution do you suggest to implement this requirement?

Select one:

a.Implement using triggers****

b.Implement using Stored Procedures

c.Implement using Cursors

d.Implement using functions

25.Which of the following options represents the presentation logic to provide the data of model in the MVC design pattern?

Select one:

a.View****

b.Model

c.Controller

d.Connector

26.In thread implementation making method synchronized is always better in order to increase application performance rather than using synchronize block to synchronize certain block of statements written in java inside the method.

True.

27.Which of the following code line destroys the session?

Select one:

a.session.isNew(false)

b.session.isAlive=false

c.session.removeSession()

d.session.invalidate()****

29.What will be the output of the below query?

Select instr('My SQL World', 'a') from dual;

Select one:

a.Prints 14

b.Prints -1

c.Prints 6

d.prints 0****

e.Query contains error

30.what is the correct syntax of declaration which defines the XML version?

Select one:

a.<?xml version="1.0"?>****

b.<xml version="1.0"/>

c.None of the listed options

d.<?xml version="1.0"/>

1) XYZ Company database tables are accessed by several users but few users want to do positional row updates or deletes operation on database tables based on business requirement.What will the right solution you will implement in such scenario?

ANS: Use Cursors

2) How to divide the page into two rows when we are using frameset?

ANS: By using rows=50%,50%

3) Which statements are true?

ANS: *If a piece of code is capable of deadlocking, you cannot eliminate the possibility of deadlocking by inserting invocations of Thread.yield()

*It is possible for more than two threads to deadlock at once.

*The JVM implementation guarantees that multiple threads cannot enter into a deadlocked state

4) When one method is overridden in subclass the access specifier of the method in subclass should be equal as method in super calss.

ANS: FALSE

5) Which attribute of the page directive indicates that the JSP engine can handle more than one request at a time when its value is set to true?

ANS: IsThreadSafe

6) Select the advantages of using coding conventions in java application development

ANS: * Improves Easy Understanding

* Improves Easy Maintenance

* Improves Readability of Software

7) A web application developed for an institution requires insertion of a header file comprising the logo and institution name. Identify the correct JSP tag from the options given below to add the logo and institution to all the pages of the web application

ANS: <% @ include file="Header.html"%>

8) Statement A: Index by table is also known as associative arrays. It lets you to look up elements using arbitrary numbers and strings for subscript values.

Statement B: Nested tables hold an arbitrary number of elements. They use sequential numbers as subscripts.

ANS: Both statements A and B are FALSE

9) select e.employee_id,e.last_name,e.department_id,d.department_name from emp e,department d where e.department_id=d.department_id;

In the statement, which capabilities of a select statement are performed?

ANS: Selection,Projection,Join

10) public class MethodSigExample{

public int test(String s,int i) {

int x=i+s.length();

```
    return x;

    }

}
```

During refactoring method signature can be changed using the option?

ANS: Refactor > Change Method Signature

11) As per Java, class names should be nouns, in mixed case with the first letter of each internal word capitalized. Try to keep your class names simple and descriptive.

ANS: TRUE

12) Try can be followed with either catch or finally.

ANS: TRUE

13) Which method removes the attribute with the given name from the ServletContext interface?

ANS: void removeAttribute(String name)

14) TagSupport and BodyTagSupport classes are present in which package?

ANS: javax.servlet.jsp.tagext

15) How to drop all tables from recycle bin?

ANS: PURGE RECYCLEBIN

16) XYZ company database has SALES table which captures all department sales information. You have been asked to create department wise summarized total sales report from SALES table. Which of the options will fetch you meaningful result?

ANS: Use Aggregate function along with GROUP BY clause in query to retrieve result

17) InputStream is the class used for stream of characters

ANS: TRUE

18) You are developing a trigger which should ensure that no negative value is inserted in employee table's Age column. You have created the trigger as follows:

```
create or replace trigger AgeVerify
before insert
on employee for each row
when(new.EmpAge<0)
begin
RAISE_APPLICATION_ERROR(-20000,'no negative age allowed');
end;
/
```

Identify error if any in above trigger and give the solution

ANS: Replacing RAISE_APPLICATION_ERROR(-20000;'no negative age allows'); to RAISE_APPLICATION_ERROR(-20000,"no negative age allowed"); will give the desired output

19) How can you force garbage collection of an object?

ANS: Call Runtime.gc()

20) Which parser reads small chunk of document at a time, parses it, generate an events and then reads another chunk of document?

ANS: SAX

21) Which complex type signifies that only one of the child elements can appear?

ANS: <xs:complexType name="CountInfo"><xs:sequence><xs:element name="countryName" type="xs:string"/><xs:element name="states" type="xs:integer"/></xs:sequence></xs:complexType>

22) Select the benefits of versioning the software in java application development?

ANS: * Formatting

* Backup and Restore

* Synchronization

23) Consider you are developing a JDBC application, where you have to retrieve Employee table schema information like table columns name, columns field length and data type etc., Which API you will use to retrieve table schema information?

ANS: ResultSetMetaData

24) What will be the output of following code?

```
public class While{  
    static int i;  
  
    public static void main(String[] args){  
  
        System.out.println(i);  
  
        while(i<=5){  
  
            i++;  
  
        }  
  
        System.out.println(i);  
  
    }  
}
```

ANS: 0,6

25) <pref:tag1>

<%= result %>

</pref:tag1>

Which of the following are valid for the <body-content> tag of tag1?

ANS: scriptless

26) Which of the following is the deployment descriptor file of a web application?
Assuming that the name of the web application is BankApp

ANS: web.xml

27) Which statement creates DocumentBuilderFactory instance?

ANS: DocumentBuilderFactory f=DocumentBuilderFactory.newInstance();

28) What will be the output of the following Java Script code when the button is clicked?

```
<body>

<script type="text/javascript">

function displayMessage(){

    document.write("Displaying message by using javaScript");

}

</script>

<button type="button" onclick="DISPLAYMESSAGE()"Display
Message</button>

</body>
```

ANS: It will print the message "Displaying message by using javaScript"

1. Which statement is true about Java Server Pages?
 - a. Platform independent.
 - b. HTML files with special tags that contain java source code to generate dynamic content.**
 - c. All of the listed options.
 - d. Used to build dynamic web pages.**
2. Consider the following statements
Statement A: When tags are implemented with tag handlers written in Java, each tag in the library must be declared in the TLD with a tag element.

Statement B: The tag element contains the tag name, the class of its tag handler, information on the tag's attributes and information on the variables created by the tag.

Which of the following is true about these statements?

- a. Statement A is false and statement B is true.
 - b. Statement A is true and statement B is true.**
 - c. Statement A is false and statement B is false.
 - d. Statement A is true and statement B is false.
3. An ObjectOutputStream deserializes objects previously written using an ObjectOutputStream. State true or false.
- a. True.**
 - b. False.
4. Consider Vijay is developing web pages using HTML. Which method he can use for sending data security on submitting the form?
- I. POST.
 - II. GET.
- a. II.
 - b. I.**
 - c. Both I & II.
 - d. None of the listed options.
5. Which tool verifies for best practice adherence?
Select one or more.
- a. ANT.
 - b. PMD**
 - c. Check Style.**
 - d. CPD.
6. A container does not initialize the servlets as soon as it starts up, it initializes a servlet when it receives a request for that servlet first time. This is called lazy loading.
State true or false.
Select one
- a. True.**
 - b. False.
7. How to divide the page into two equal halves when we are using frameset?
Select one or more

- a. **By using cols=50%,50%.**
 - b. By using colspan.
 - c. **By using rows=50%,50%.**
 - d. By using rowspan.
8. Which of the following is valid declaration in JSP using declaration tag?
- a. **< %! String name="Rocky"; %>**
 - b. <%= public String name="Anand"; %>
 - c. <!% String name = "Rocky" %>
 - d. <%@ String name ="Anand" %>
9. How do you declare a tag library within a JSP page to use custom tags
- a. By using unique variable.
 - b. By using scriptlet.
 - c. **By using taglib directive.**
 - d. By using path to the tag handler.
10. What is the syntax of expression Language in a JSP Page?
- a. \${"expr"}
 - b. #{expr}
 - c. **\${expr}**
 - d. \$[expr]
11. Sam is writing a web application program. He has implemented ServletContextListener interface he should use to perform startup activities for web application?
- a. Start().
 - b. initiateContext().
 - c. **Contextinitialized().**
 - d. Init().
12. Consider you are developing a JDBC application, where you have to retrieve quarterly report from database by executing database store procedure created by database developer. Which statement API you will use to execute store procedure and retrieve ResultSet Information?
- a. **CallableStatement.**
 - b. PreparedStatement.
 - c. Statement.
 - d. None of the listed options.
13. Method keySet() in Map returns a set view of the keys contained in that map.

State true or false.

- a. **True.**
- b. False.

14. Consider the following code for an HTML form.

```
<form action=?servlet/Login?>  
  
<input type=?text? name=?username? value=?enter username?/>  
  
<input type=?submit? name=?sbutton? value=?signin!..?/>  
  
</form>
```

Which of the following happens upon pressing the submit button in the above form? (choose 2)

Select one or more

- a. **A request is sent with the HTTP method GET.**
- b. A request is sent with the HTTP method POST.
- c. The parameter username is the only parameter passed to the web server in the request.
- d. **The parameter username and sbutton are passed to the web server in the request URL.**

15. Consider the development scenario where you have created Employees class with implementation code and as per the project requirement you have to ensure that developer in team reusing code written in Employee class only using inheritance by extending the employee class but not by creating the instance of Employee object directly. Please suggest the solution to implement given requirement?

- a. Make Employee class methods public.
- b. **Mark Employee class with abstract keyword.**
- c. Mark Employee class with final keyword.
- d. Make Employee class methods private.

16. Which of the following are used for executing client side script?

Select one or more

- a. Servlets.
- b. JavaScript.**
- c. JSP.
- d. VBScript.**

17. What are the types of refactoring?

Select one or more

- a. Logical Structure.**
- b. Physical Structure.
- c. Method Level.
- d. Class Level Structure.**

18. What is the data type of m in the following code?

```
import java.util.*;
public class set1
{
    Public static void Main(String[] args)
    {
        Set s = new HashSet();
        s.add(20);
        s.add("abc");
        for(_____ m : s)
            System.out.println(m);
    }
}
```

- a. Set1.
- b. Int
- c. Object**
- d. String.

19. What will be the output for the following code?

```
Public class Exception1 {

Public static void Main(String args[])
```

```
int i=1,j=1;

try
{
    i++;
    j--;
    if(i/j>1)
        i++;
}
Catch(ArithmeticException e)
{
    Sop(0);
}
Catch(ArrayIndexOutOfBoundsException e)
{
    Sop(1);
}
Catch(Exception e)
{
    Sop(2);
}
Finally {
    Sop(3);
}
```

Sop(4);

}

}

Ans : 034 will print

20. Examine the PL/SQL block

declare

result Number;

num1 Number:=&number1;

num2 Number:=&number2;

begin

select num1/num2 into result from dual;

dbms_output.put_line('Result is'||result);

exception

when ZEROS_DIVIDE then

dbms_output.put_line('Exception Occurred Divide by Zero');

end;

/

- a. Compiles successfully and terminates the program due to an Exception.
- b. Exception Occurred divide by zero.
- c. Compilation fails.
- d. **Result is 0.**
- e. Result is 10.

21. An art of identifying, organizing, controlling and verifying the modulation to the software work products built by the developer

- a. SVN
- b. SCM
- c. HCM
- d. SDLC

Ans: may be 'a' or 'b' not exactly mentioned but mostly 'b'.

22. Which parser is a W3C standard?

- a. None of the listed options.

- b. SAX
- c. DOM**
- d. XHTML.

23. You have a row level BEFORE UPDATE trigger on the EMP table. This trigger contains a SELECT statement on the EMP table to ensure that the new salary value falls within the minimum and maximum salary for a given job title. What happens when you try to update a salary value in the EMP table ?
- a. The trigger fails because you cannot use the minimum and maximum functions in a BEFORE UPDATE trigger.
 - b. The trigger fails because a SELECT statement on the table being updated is not allowed.
 - c. The trigger fires successfully.**
 - d. The trigger fails because it needs to be a row level AFTER UPDATE trigger.

24. John wants to see how many employees are there whose salary is above average. Which of the following query will help john to achieve this task?

- a. Select count(*) from emp where sal > (select Avg(sal) from emp);**
- b. Select count(*) from emp where sal exist (select Avg(sal) from emp);
- c. Select count(*) from emp where sal > (select Average(sal) from emp);
- d. Select count(*) from emp where sal > (select max(sal) from emp);
- e. Select count(*) from emp where sal in (select Avg(sal) from emp);

25. abstract public class Employee

```
{
Protected abstract double getSalesAmount();
Public double getCommission()
{
return getSalesAmount()*0.15;
}
}
```

Class Sales extends Employee

```
{
// insert method here
```

Which two methods inserted independently correctly complete the sales class?
Choose two

- a. double getSalesAmount(){return 1230.45;}

- b. public double getSalesAmount(){return 1230.45;}**
- c. private double getSalesAmount(){return 1230.45;}
- d. protected double getSalesAmount(){return 1230.45;}**

26. Select the right coding best practices followed while using java Collections

Select one or more

- a. Copy collections into other collections by calling addAll() methods instead using iterator to copy each collection element.**
- b. Use collections with generic with same type of data.**
- c. All of the listed options.
- d. Use for loop instead of iterator.

27. Manoj has created the Hello servlet that displays Welcome in the browser window. The code of the servlet is:

```
Package myworld;
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletConfig;

import javax.servlet.Servlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class hello extends HttpServlet

{

    Protected void doGet(HttpServletRequest request HttpServletResponse response)
    throws ServletException IOException

    {

        PrintWriter out = response.getWriter();

        Out.println("<html>");
```

```
Out.println("<head>");  
Out.println("<title>My Servlet</title>");  
Out.println("</head>");  
Out.println("<body>");  
Out.println("<h>WELCOME</h>");  
Out.println("</body>");  
Out.println("</html>");  
Out.close();  
}
```

ANS not given:

28. What will be the output of the below query?

Select to_CHAR(sysdate+(10/1400),'HH:MI:SS') from dual;

- a. Query contains error
- b. Adds 10 days to the current Timestamp
- c. Adds 10 minutes to the current Timestamp.**
- d. Date functions cannot be converted into char.
- e. Adds 10 seconds to the current Timestamp.

29. Which of the following is an empty tag in HTML?

- a. <h1>
- b. <input>
- c.
**
- d. <a>

30. Consider Vijay is developing a web application. Which method he can to get a collection of elements of same type (for example paragraphs tags) in Java Script?

- a. getElementByName()
- b. getElementById()
- c. none of the listed options
- d. getElementByTagName()**

31. XYZ company database tables are accessed by several users but few users want to do positional row updates or deletes operation on database tables based on business requirement in such scenario?

- a. Use database indexes.
- b. Use cursors.**
- c. Use database trigger.
- d. Use view.

32. Consider the following statements

Statement A: A resource is passive when it does not have any processing of its own.

Statement B: The content of a passive resource does not change.

- a. Statement A is false and statement B is false.
- b. Statement A is true and statement B is true.
- c. Statement A is true and statement B is false.
- d. Statement A is false and statement B is true.

Answer not known

33. Automatic page Refresh can be done by using refresh Meta Tag.

State True or False.

Select one:

- a. True**
- b. False

34. Gen has written a JSP code in which he is calling the getMessage() function which is returning a value "hello world" You have to identify which code should he use to get this?

- a.

```
<html>
<%!
String message="hello world";
String getMessage()
{
return message;
}
%>
Message for you:<%! getMessage() %>
</html>
```
- b.

```
<html> <%=
```

```
String message="hello world";
{
    String getMessage()
}
return message;
answer not given
```

35. Which complex type specifies that the elements should always be in the order specified?

Select one: a. None of the listed options

b. `<xs:complexType name="CountrInfo"><xs:all> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:all></xs:complexType>`

c. `<xs:complexType name="CountrInfo"><xs:choice> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:choice></xs:complexType>`

d. `<xs:complexType name="CountrInfo"><xs:sequence> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:sequence></xs:complexType>`

36. What will be the output of following code?

```
class Super2{
    public void display() {
        System.out.println("super class display method");
    }
    public void exe()
    {
        System.out.println("super class exe method");
        display();
    }
}
```

```
}  
  
}  
  
public class InheritMethod extends Super2  
{  
    public void display()  
    {  
        System.out.println("sub class display method");  
    }  
}
```

answer not given

37. Which of the following attributes of page directive are invalid?

- a. session
- b. isELIgnored
- c. language r
- d. isScriptingEnabled

38. abstract class Vehicle

```
{  
    public int speed()  
    {  
        return 0;  
    }  
}
```

class Car extends Vehicle

```
{  
public int speed()  
{  
return 60;  
}  
}  
  
class RaceCar extends Car  
{  
public int speed()  
{  
return 120;  
}  
}
```

Answer not known.

39. You are developing a web application using Servlets. You have to use filters so that the web container intercepts the incoming requests before it is forwarded to the servlet. Which of the following method is called for every request intercepted by the filter?"

- a. init
- b. **doFilter**
- c. doGet
- d. destroy

40. developers and you have been asked to develop class by Name ProgrammerAnalyst and to ensure that other developers in team use

ProgrammerAnalyst class only by creating object and team member should not be given provision to inherit and modify any functionality written in ProgrammerAnalyst class using inheritance. How do you achieve this requirement in development scenario?

- a. None of the listed options
- b. Declare the ProgrammerAnalyst class has private
- c. Declare the ProgrammerAnalyst class has final**
- d. Declare the ProgrammerAnalyst class has abstract

41. When a thread is sleeping as a result of sleep(), it releases its locks.

Statement2: The Object.wait() method can be invoked only from a synchronized context.

- a. BOTH Statement1 & Statement2 are TRUE.
- b. BOTH Statement1 & Statement2 are FALSE.
- c. Statement1 is TRUE but Statement2 is FALSE.
- d. Statement2 is TRUE but Statement1 is FALSE.**

42. Consider the usage of JSTL forEach tag in the following code snippet:

```
<font color='green'>
<ul>
<c:forEach flag=errmsg items='${errorMsg}'>
<li>${errmsg}</li>
</c:forEach>
</ul>
</font>
```

The code snippet contains some errors Predict the correct code.

Select one:

- a. ``
 ``
 `<c:forEach flag="errmsg" items='${errorMsg}'>`
 `${errmsg}`
 `</c:forEach>`
 ``
 ``

answer not given

43. Identify the type of variable declared VARIABLE City Varchar2(20).

Select one:

- a. Bind Variable**
- b. Global Variable
- c. Host Variable
- d. Invalid Variable declaration
- e. None of the listed options

44. What is the correct syntax of the declaration which defines the XML version?

Select one:

- a. `<?xml version="1.0" i>`
- b. None of the listed options
- c. `<xml version="1.0" />`
- d. `<?xml version="1.0"?>`**

45. If your JDBC Connection is in auto-commit mode, which it is by default, then every SQL statement is committed to the database upon its completion. State True or False.

Select one:

- a. **True**
- b. False

46. XYZ Company database tables are accessed by several users but for few users need to be provided provision for updating information like address, phone number, email address in secured manner without providing direct access to underlying database base tables. What will the right solution you will implement in such scenario to meet requirement?

Select one:

- a. Use database functions
- b. Create Views**
- c. Use database Trigger
- d. Use Cursors

47. Which method of jsp is equivalent to service method of servlet?

Select one:

- a. jspService()
- b. jsp_Service()
- c. service()
- d. _jspService()**

48. What will be the output for following code?

```
public class CompareStrings
{
    public static void main(String[] args)
    {
        String a=new String("string");
        String s=new String("string");
        if(a==s)
            System.out.println("both strings are equal");
        else
            System.out.println("both strings are not equal");
    }
}
```

```
}  
}
```

Select one:

- a. compilation error
- b. Strings cannot be compare using == operator
- c. both strings are equal
- d. both strings are not equal**

49. Consider you are maintaining XYZ company database. XYZ database tables are accessed by several users to fetch daily reports by joining multiple tables found each user writes query which is more than 100 line of SQL statement and submits to server for processing in order to fetch results. This is really increasing the network traffic and also response time. What will the right solution you will implement in such scenarios in order to increase performance?

Select one:

- a. Create Trigger
- b. Create Stored Procedure**
- c. Create index
- d. Create View

50. Which object of JSP holds reference to javax.servlet.http.HttpSession object?

Select one:

- a. request
- b. session**
- c. response
- d. PageContext

1) interface B

```
{  
    public void bm1();  
    public void bm2();  
}
```

abstract class a implements b

```
{  
    public abstract void am1();  
    public abstract void am2();  
    public void bm1();  
}
```

public class Demo extends a

```
{  
}
```

in above scenario must override which methods?

C) all of the options.

2) Which of the following is incorrect about a delegates?

C) delegates is a value type.

3) data type of m in following?

```
public class set1  
{  
    public static void main()  
    {  
        set s=new hashset();  
        s.add(20);  
        s.add("abc");  
        for(-----m.s)  
            system.out.println(m);  
    }  
}
```

answer: object

4) <pref tag1>

<%=result %>

</pref tag1>

which of following valid for <body-content>tag of tag1?

b.scriptless

5) Iterator is having previous() method?

b.false

6) inputstream is the class used for stream of characters?--

b.false

7) Which of the following is correct about c# program given below ,if a value "6" is input to it ?
using system;

```
namespace indianconsole..
{
class myprogram
{
static void Main()
{
int index;
int val=44;
int[] a=new int[5];
try
{
console.writer("enter a number");
index=convert.toint32(console.readline());
a[index]=val;
}
catch(formatexception e)
```

A) It will output:Index out of bounds remaining program.

8)----

9) During Translation the snippet code is copied inside:

D) The servlet method of generated servlet.

10) Code to get the value of "address" request parameter is:

C) \$(Param.address).

11) Gen has written a JSP code in which he is calling the getmessage() function which is returning a value "hello worlh" .You have to identify which code should he use to get this?

**B) <html><%=String message="hello world",String getmessage()
{return message.}%>Message for you <%=getMessage() %></html>.**

12) which method can be used to submit form data that should not be exposed for viewing?

B) Post.

13) output of following?

```
public class VariableDec1
{
public static void main()
```

```
int i=32;
char c=65;
char a=c+1;
sysout.println(a);
```

```
}
```

B) a

14) output of following?

```
class Super2
{
    public void display()
    {
        System.out.println("Super class display method");
    }
    public void exe()
    {
        System.out.println("Super class exe method");
        display();
    }
    public void display()
    {
        System.out.println("sub class display method");
    }
    public static void main()
    {
        InheritMethod o=new InheritMethod();
        o.exe();
    }
}
```

B) Super class exe method super class display method.

15) what does LOCAL argument in the DECLARE CURSOR statement denote?

A,C,D

A) specifies that cursor can be available only in the batch,stored procedure ,or trigger in which the cursor was created.

C) the LOCAL cursor will have to be explicitly deallocated when the batch,stored procedure ,or trigger terminates.

D) the LOCAL cursor will be implicitly deallocated when the batch ,stored procedure ,or trigger terminates.

16) result of 10.987+"30.765" is :

A) 10.98730.765 .

17) statement A:Arrays have a fixed upper bound,but nested tables are unbounded.

statement B:Second arrays must have consecutive subscripts and nested tables are dense ,but they can be sparse(have non-consecutive subscripts).

B) Both A & B true.

18) which of the following are correct ?

A,B,D

A) argument that uses params keyword must be the last argument of variable argument list of a method.

- B) pass by references eliminates the overhead of copying large data items.**
D) variable passed as out arguments need to be initialised prior to being passed.

19) consider the following code with line numbers

line4:<%! int a=6 %>

line5:<% int b=5%>

line6: Result is <%=a*b %>

which of the following are true with respect to the above code?

C) line6 is invalid

20) output of following code?

```
public class CompareStrings{
public static void main()
{
if("string.trim()=="string")
sys.out.pln("both are equal");
else
sys.out.pln("both are not equal");
}
}
```

C) both are not equal.

21) consider you are developing shopping cart application you have to store details of items purchased by each customer in intermediate memory before storing purchase details in actual database permanently note that number of different items purchased by customer is not define it may vary.how u implement given requirement using java?

B) Implement Using Collections API'S.

22) select correct naming convention used during class declaration .

C,D

C) should be simple & descriptive.

D) class name should be nouns.

23) which complex type specifies that the elements should always be in the order specified?

D) <xs.complexType name="CountInfo"><xs.sequence>

<xs.element name="countryName" type="xs.string"/> <xs.element name="states" type="xs.integer"/></xs.sequence></xs.complex Type>

24) which of the following are correct?

A,B,C

A) All objects created from a class will occupy equal number of bytes in memory.

B) A class is a blueprint or a template according to which objects are accepted.

C) Instance members of a class can be accessed only through an object of that class.

25) Ronald has observed that his web app has some HTML tags or features that all the web browsers do not support.If the clients browser does not support the app may or may not run or may generate undesired output in the web browser of the client .Therefore Ronald wants to identify the type of

browser and other specific info.. about the client that sends the request to the web app.. before invoking the servlet .which of following will help Ronald provide functionality?

A) By programming Filters.

26) which of the following assemblies can be stored in Global Assembly Cache?

C) Shared assemblies.

27) Cultuer & UICulture properties of a page class can have different culture values?

B) False

28) How do you seprate ASP.NET code from the user interface?

B) Using code Behind Forms.

29)-----

30) what is the significance of the @Register directive in a ASP.NET Web page?

B) The directive is used to register user control.

30. What is the Significance of the @Register directive in ASP.NET web Page?

a. The directive is used to register to register an application

b. The Directive is used to register a user control

C. The Directive is used to register a web site

d. The directive is used to register a web page

31. Which Statements are true about large varchar? Select one or more:

a. A sql_variant cannot contain a large varchar data type.

b. Large varchar columns are the only columns that can be used as partitioning key columns

c. large varchar columns cannot be used as partitioning key columns.

d. Large varchar columns can be specified as a key column in an index

e. A sql_variant cannot contain a large varchar data type.

32. What does the following code denote?

```
public class Contract
```

```
{
```

```
    public string Name{get; set}
```

```
    public string Email{get; set}
```

```
    public string Address {get; set}
```

```
}
```

```
Class Customer: Contract
```

```
{
```

```
    public string Gender{get; set}
```

```
    public decimal income{get; set}
```

```
}
```

a. Overriding

b. Encapsulation

c. Inheritance

d. Overloading

```

33. public class Threads
{
Public static void main(String [] args)
{
New Threads().go();
}
Public void go()
{
Runnable r =new Runnable()
{
Public void run()
{
System.out.print("Run");
}
}
Thread t=new Thread(r);
t.start();
t.start();
}
}

```

a. Compilation fails

b. An exception is thrown at runtime

c. The code executes normally and prints "Run".

d. The code executes normally, but nothing is printed.

34 What are the tools & plug-ins commonly used in testing java application code?

Select one or more

a. JUnit

b. EMMA

c. ANT

d. JavaScript

35. Which two statements about packages are true?

Select one or more

a. A package is loaded into memory into each time it is invoked.

b. You can achieve information hiding by making package constructs private.

c. You can parameters to packages

d. Packages can be nested.

e. The contents of packages can be shared by many applications.

36. Mention some of the important functions of servlets Filter.

Select one or more

a. None of the listed options

b. Security Checks

c. Modifying the request or response.

d. Allowing all the users

37. Which of the following Listener is used to track number of active sessions or users?

- a. HttpSessionListener
- b. ServletRequestListener**
- c. ServletRequestListener**
- d. HttpSessionbindingListener

38. What will the output for the following code?

```
public class Exe3
{
    Try
    {
        int i=10;
        int j=1/0;
        return;
    }
}
```

(Choose Two)

Select one or more

- a. error
- b. welcome
- c. compilation error
- d. None of the Listed options

39. Which of the following attributes of page directive are invalid?

Select one

- a. session
- b. language**
- c. isELignoed
- d. is ScriptingEnabled

40. What is the use of ServletConfig interface?

Select one

- a. A servlet configuration object configuration object used by a servlet container to pass information to a servlet during initialization.**
- b. All of the listed options.
- c. Defines an object to provide client request information to a servlet
- d. The ServletConfig object is contained within the ServletContext Object.

41. Which object of JSP holds reference to javax.servlet.http.HttpSession Object?

Select one

- a. PageContext
- b. response
- c. request
- d. session**

42. Which of the following options can be used by the controller to destroy a session of a web application immediately?

Select one

- a. By setting the session-timeout parameter in the web.xml file to 1 minute
- b. By using the destroy() method
- c. By using the invalidate() method**
- d. By setting the setMaxInactiveInterval() method period to 60 seconds

43. How does SOAP enable creation & usage of Web services?

Select one or more

- a. Enables messaging over HTTP**
- b. Uses standard means of describing data**
- c. Uses proprietary means of describing data.
- d. Provides a robust mechanism to send data & structure over the web.**

44. What are the benefits or using a stored procedure?

Select one or more

- a. Efficient compilation
- **b. Reduced network traffic**
- **c Efficient reuse of code**
- **d Precompiled execution, hence faster**
- e. The procedure can reside outside the SQL Server instance hence manageable.

45. Consider you are maintaining ABC company database ABC company database tables are accessed by 1000 users initially when was designed from last two years Mere was tremendous Increase in number records count also number of users who are accessing Ire database tables to fetch results. Users of ABC company database are reporting problem that query processing is taking more time when they executes query against database tables What will the right solution you will suggest in such scenarios in order to increase database query Performance?

Select one

- a. Create index
- b. Create Function
- c. Create Trigger
- d. Create Stored Procedure**

46. Given that URI-rewriting must be used tor session management. identity the query sting attribute used when URI-rewriting

Select one

- a. jsessionid**
- b. containerid
- c.servletid
- d. sessionid

47. Consider Vijay is developing a web application. Which method be can use to gel a collection of elements of same type (for example paragraph tags) in Java Script?

Select one:

- a. getElementById()
- b. getElementByName
- c. none of Listed options
- d. getElementsByTagName()**

48. JAXP Stands for

- a. Java API for XML Processing**
- b. Java API extensive processing
- c. Java API extensible Processing
- d. None of the listed options

49 What does the following code denote?

```
var orderedCustomers =from customer in Customers where customer Grade == "Premium" orderby  
customer Name select customer Name;
```

select one of more :

- a. The following code shows the syntax for Ordering data**
- b. The following code is an example of LINQ query**
- c. The following code is an example of Database query
- d. The following code shows the syntax for Filtering data.**

50. Which statements about JDBC are true?

Select one or more :

- a. JDBC has 5 types of drivers
- b. JDBC is an API to access relational databases , spreadsheets and flat files.**
- c. JDBC stands for Java Database Connectivity**
- d. JDBC is an API to bridge the object-relational mismatch between OO programs and relational databases.**

51. JavaBeans with JSP?

Select one :

- a. <jsp:useBean><jsp:setProperty> and <jsp:getProperty>**
- b. <jsp:useBean> and <jsp:plugin>
- c. <jsp:useBean> and <jsp:include>
- d. <jsp:setProperty> <jsp:getProperty> and <jsp: forward>

52. Select two runtime exceptions (Choose Two)

- a. FileNotFoundException
- b. IOException
- c. NullPointerException
- d. ArrayIndexOutOfBoundsException**
- e. SQLException**

53. Manoj has created the Hello servlet that display Welcome in the browser window

The code of the servlet is:

```
package myWorld  
import java.io.IOException;  
import java.io.PrintWriter  
import javax.servlet.ServletConfig;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;  
public class hello extends HttpServlet  
{
```

```
protected void doGet(HttpServletRequest request , HttpServletResponse response)throws IOException
{
    PrintWriter out= response. getWriter()
    out.println("<html>");
    out.println("<head>");
    out.println("<title>My Servlet</title>");
    out.println("<head>");
    out.println("<h>WELCOME</h?>");
    out.println("</body>");
    out.println("</html>");
}
}
```

```
<servlet><servlet-name>hello</servlet-name><servlet-class>myworld.hello</servlet-
class></servlet><servlet-mapping><servlet-name>hello</servlet-name><url-pattern>/hello</url-
pattern></servlet-mapping>
```

54. Consider you are developing an ATM application of ABC Bank using

a. using thread Synchronization

55 Which statements are true about HashTables?

a. The value can be the null reference

d. The key cannot be null reference

56. View that creates static results can be modified using _____ which allow to define how the underlying tables are modified ensuring your data integrity.

a. Triggers.

57. Consider you are creating a cursor. Chose the sequence of steps to work with cursors?

d. Open, Declare, Fetch Close.

58. What will the output for following code?

```
public class MethodOverloading {
    int m=10,n;
    public void div(int a)throws Exception{
        n=m/a;
        System.out.println(n);
    }
    public void div(int a, int b){
        n=a/b;
    }

    public static void main(String[] args) throws Exception {
        MethodOverloading o=new MethodOverloading();
        o.div(0);
    }
}
```

```
o.div(10, 2);  
}
```

```
}
```

a. It will give ArithmeticException

59. Please select the correct statement with respect to including JavaScript in HTML pages.

b. All of the listed options

60. which JSTL code snippet can be used to perform URL rewriting??

c. <a href='<c:url value="cognizant.jsp"/>'>

1. Expression language -- `${expr}`
2. JSP writer – out
3. Program with `try{ system.exit(0) }` --- A
4. Program with empty `try { }` --- A,C
5. Syntax of cursors ---declare,open,fetch,close
6. Jsp life cycle—translate-compile-load-execute
7. Superclass-subclass access specifier—protected-default
8. Program with collections—compilation error
9. Not List implementation—Hashtable,properties
10. Container for enterprise edition—EJB
11. Get first paragraph—`document.getElementsByTagName("p")[0]`
12. Package—java.sql and javax.sql
13. Structure of java prog—package-import-class-methods
14. True about constructors—constructors can be overloaded
15. Xml syntax--`<? Version="1.0" ?>`
16. Syntax for message--`<message> if a < 60</message>`
17. Custom tags—taglib directory
18. JAXP-java API for XML processing
19. DOM—Document Type Definition
20. XSL—Extensible style sheet language
21. Http is stateless
22. Program which is error—line 6
23. Java scripts can be written as—all the above
24. Program with divide by zero—only arithmetic exception
25. Thread program –compilation error

26. Request dispatcher—include and forward
27. Alter table table_name DISABLE ALL TRIGGERS
28. String compared with == --- compilation error
29. Comparable override—compareTo
30. Buffer writer—false
31. Return type of next()—object
32. Interface of HttpServletRequest—servlet request
33. HttpSession session=request.getSession,String s=(String)session.getParameter()
34. getInitParameter(String name)
35. best practice for list – all the checkbox
36. Long l—compilation error
37. Public int i=10,sysout(i++)—compilation error
38. 1000 jsp how many servlets—1
39. Stored procedures—callable statements
40. Page directive—import
41. While with wrapper int,byte,short—true
42. Pgm int x=3,switch(x) case... -- ans-3,4
43. InputStream for characters—false
44. Session.invalidate(2 ques)
45. Initialization in web.xml--<init-param>
46. Runtime exceptions—Null pointer and array out of bound
47. Statement questions—statement A false and statement B true
48. Scriptlet—date in hh:mm:ss format
49. Bind variable
50. Database triggers—replicate constraints,global centralizes operations

51. String tokenizer--- 5

52. Coding conventions—all the above

1- What is abbreviation of jaxp?

Java api for xml processing

2- Do we have remove attribute in enumeration?

yes

3- Which method of jsp can be overridden?

a- _jspService() b- _jspInit() c- _jspDestroy()

Which is a w3 standard?DOM

4- Which has better performance joins or subqueries?Joins

5- Which text is not parsed in xml?CDATA

8-Does HTML contain program logic?NO.

6- select (2+3*4/2-5) from dual; ans:3

10- String s1=new String("abc");

String s2=new String("abc");

System.out.println(s1.compareTo(s2)); ?ans:0

11- StringBuffer i=new StringBuffer("welcome")

StringBuffer j=new SrtingBuffer("welcome")

If(i.equals(j))

Sop("i equals j");

If(i.equals(i))

Sop("i equals i");ans:I equals i

12- Integer a=new Integer(2);

Integer b=new Integer(2);

System.out.printn(a==b); ?ans:false

13- httpServletRequest is _____ a)HttpRequests sub interface)it's not a sub interface c)HttpServletans:c

15- Jsp after processing what will it return to client a)jsp b)html c)source servlet d)compiled servlet

16- Many users accessing lots of tables each using more than 100 lines of code.

What is the best option?

1.View 2.Index 3.Stored Procedure

18- try{

int i=10;

int j=i/0;

return;

}

catch()

{

Sop("welcome");

}

SOP(j);

What happens?

1.prints welcome 2.Runtime-error 3.Compilation error ans:3

20- how to divide a page into two rows?

a)rowspan b) colspan c)rows="50%50%" d)cols="50%50%"ans:c

21- why expression language is used in JSP page?Ans:c

a)write java code b)import files c)print statements d)declare variables

22- how to disable all triggers?ans: alter table <table-name> disable all triggers

23- form action to what attributes will be redirected to next page..ans:d

a)get b)post c)the parameter is added in httprequest

d)the parameter along with submit is added to request

24- which creates container of webpage ans:1

i)DIV ii)Span

26- whether we have to specify datatype in java Script?Ans: not required

28- Filters can generate auto-response : true/False?Ans:true

29-JDBC statements are included in which package? Ans:java.sql.*

30-Which reference object in jsp is used in Http servlet Response

a)session

b)context

c)request

d)responseans:d

31- how to import a package into JSP?Ans: a

a) <@ page import="java.util.*">

b) < @include import="java.util.*">

c) < @import="java.util.*">

32- line 1 : String string1 =new String("Hi");

line 2: String string2 =String1;

line 3: String1= new String("hello");

line 4: String2= new String("world");

In which line garbage coollection takes place? Ans:line4

33- which is a build school? Ans:a

a) ANT b)pmd c)cmd

34)how print the request address?

a){request.address} b){param.address}

35)which of the following is a marker interface?

a)serializable b)runnable c)externalizable

36) which of the following is a child element of filter?

a) filter-class b) display-name c) Init d) context e) config

37) a developer creates a class which he does not want anyone to inherit or modify. What should he do? Declare it as -

1. final

2. abstract

3. private

1. how to disable the session

a. Session.invalidate()

2. $\text{select}(2+3*4/2-5)$ from dual

a. 3

3. Include one or more HTML file

a. Frameset

4. Override comparable

a. CompareTo

5. DTD = document type definition

6. XSL = extensible Style sheet language

7. Which is safe, post, get = post

1. A JSP page needs to set the property of a given JavaBean to a value that is calculated with the JSP page. Which of the following jsp:setProperty attributes must be used to perform this initialization? (Choose 3)

a. value

b. property

c. name

d. attribute

e.id

2.Where is JSP executed?

- ☐ a.Both in Server Machine and Client Machine
- ☐ b.Depends upon configuration
- ☐ c.Client machine
- ☐ d.Server machine

3.Which of the following are true about MVC architecture?(Choose 3)

- ☐ a.Servlet forms the controller part
- ☐ b.Ease of maintenance and promotes reusability
- ☐ c.JSPs are the target of all requests
- ☐ d.Servlets are the target of all requests
- ☐ e.JSP forms the controller part

4.Identify model component in an MVC pattern.

- ☐ a.Browser
- ☐ b.ActionServlet
- ☐ c.JSP
- ☐ d.Data Bean

5.Which of the following statement is correct?

- ☐ a.You can override init() method but you should not.
- ☐ b.You override init() method to fetch init params and execute an initial code.
- ☐ c.You override init() method to set an init param
- ☐ d.You override init() method to cleanup database connection

6.Select the correct flow of Servlet lifecycle

- ☐ a.Loading->Instantiation->Initialization->Execution->Destroy
- ☐ b. Loading->Execution ->Instantiation->Initialization ->Destroy

- ☐ c. Loading->Initialization ->Instantiation ->Execution->Destroy
- ☐ d. . Loading->Initialization ->Instantiation ->Execution->Destroy

7. ____ is a collection of actions that encapsulate some functionality to be used from within a JSP page.

- ☐ a.Tag library descriptor
- ☐ b.URI
- ☐ c.Presentation
- ☐ d.Tag library

8.A serializable object for transferring data over the network is an example of which of the following design pattern?

- ☐ a.Assembler
- ☐ b.Session Façade
- ☐ c.Transfer Object
- ☐ d.Network Object

9.Which of the following statements are True?(Choose 2)

- ☐ a.A JSP must contain some Java code
- ☐ b.JSP executes faster than HTML
- ☐ c.A JSP can contain only HTML
- ☐ d.A JSP is executed at server and plain HTML is sent back to the client browser

10. Which of the following statements is TRUE?

- ☐ a.A servlet is a JSP file with embedded Java
- ☐ b. A servlet is a java program with embedded HTML
- ☐ c.None of the listed options
- ☐ d.A JSP is a Java program with embedded HTML

11.Which of the following statements are TRUE?(Choose 3)

- ☐ a.The purpose of EL is to make a JSP script free

- b.EL is evaluated at client machine
- c.EL stands for Extended Language
- d.EL is enabled is a JSP by default
- e.EL is a simple and powerful replacement of Standard Actions

12.How will you access a servlet context initialization parameter named “company-name”?

- ☐ a. `${init.company-name}`
- ☐ b. `${init['company-name']}`
- ☐ c. `${initParam["company-name"]}`
- ☐ d. `${contextParam.company-name}`

13.Using multiple JSP components to construct your view is an example of

- ☐ a.ViewHelper Pattern
- ☐ b.Service Locator
- ☐ c.Pattern Proxy Pattern
- ☐ d.Composite View Pattern

14.In an Expression Language ∞ -displays Infinity

- ☐ True
- ☐ False

15.When declaring listener in the DD, which sub-elements of the <listener> element are required(Choose all that apply)

- ☐ a.<listener-class>
- ☐ b.<listener-type>
- ☐ c.<listener-name>
- ☐ d.<listener-class-name>

16. Which of the following can store attributes?(Choose 3)

- a.ServletResponse

b. HttpServletRequest

c. ServletContext

d. HttpSession

17. What is the return type of `getAttribute()` method of `HttpServletRequest`?

☐ a. Object

☐ b. String

☐ c. Attribute

☐ d. None of the above

18. Which of the following are used to retrieve the value associated to the parameter name provided within the `<init-param>` tag?

☐ a. `getServletContext().getInitParameter(paramname)`

☐ b. `getServletConfig().getInitParameter(paramname)`

☐ c. `getServletContext().getParameter(paramName)`

☐ d. `getServletConfig().getParameter(paramName)`

19. Init parameter can be called from servlet constructor.

☐ True

☐ False

20. Where is JSP translation and compilation carried?

☐ Deployment

21. Writer object for response

`response.getWriter()`

`response.getWriter().getOutputStream()`

22. Java bean are Java classes with getter and setter property

☐ True

☐ False

23.EL implicit and JSP are same

☐ True

☐ False

24.Session shutdown formally

☐ Session.invalidate

25.Binary stream can be sent after servlet processing

☐ True

☐ False

26.Which scope to use, so that all JSPs can access the resource?

☐ Request

☐ Session

☐ Application

☐ Page

27.Which is MVCs strut framework controller?

☐ ActionServlet

☐ Data bean

☐ JSP

☐ None of these

28.Which is the default scope of <jsp:usebean> and <jsp:getProperty> actions?

☐ a.Page

☐ b.session

☐ c.request

☐ d.application

29.The requested resource is returned in a message body of a HTTP response.

☐ True

☐ False

30. You are designing a complex webapp that uses multi-tier architecture. The application must provide UI interfaces for HTML as well as XML and should be maintained. Which design pattern would you use?

☐ a. Business Delegate

☐ b. MVC

☐ c. Data Access Object

☐ d. Data Transfer Object

31. Which statements about ServletContext initialization parameters are true?

☐ a. They should be used for data that changes rarely.

☐ b. They should be used for data that changes frequently.

☐ c. They can be accessed using `ServletContext.getParameter()`.

☐ d. They can be accessed using `ServletContext.getInitParameter()`.

☐ e. They should be used for data that is specific to a particular servlet.

☐ f. They should be used for data that is specific to an entire web application.

32. "Your servlet class depends on a utility class named `com.abc.TaxUtil`. Where would you keep the `TaxUtil.class` file?

☐ a. WEB-INF

☐ b. WEB-INF/classes (Question was not the exact one but answer was this)

☐ c. WEB-INF/lib

☐ d. WEB-INF/jars

☐ e. WEB-INF/classes/com/abc

33. To get value of address request parameter?

☐ `request.getParameter("address")`

34. Some question on active and passive resource (Choose 3)

35. Front Controller properties

36.Which is not JSP implicit object?(Choose 3)

Request scope

Session

Out

context

Question 1

Select which of the following XML documents are well-formed XML documents.

a ☐ <productname>Electric Water Heater&piccoro_</productname>

b ☐ <productname>"Water Purifier(<<6>>)"</productname>

c ☐ <productname>Dehumidifier "XZ001" </productname>

d ☐ <productname/ >

Correct answer : c

Question 2

Select which of the following is correct with respect to the description position of the attribute definition if

an element is defined within XML Schema, and an attribute is added to that element.

a. The attribute definition is described before the complex type definition model group.

b. The attribute definition is described within the complex type definition model group.

c. The attribute definition is described after the complex type definition model group.

d. If the attribute definition is inside the complex type definition, there are no restrictions on the description position

Correct answer : c

Question 3

Select which of the following is the specification used when transforming XML documents to HTML.

a. XSLT

b. DTD

c. XML Schema

d. SOAP

Correct answer : a

Question 4

Select which of the following is correct with respect to an XML parser.

- a. An XML parser transforms XML documents using an XSLT style sheet
- b. An XML parser checks whether an XML document is a well-formed document
- c. An XML parser must be able to conduct validity verification to qualify as an XML parser
- d. An XML parser is software developed by the W3C

Correct answer : b

Question 5

Select which of the following describes the method to ensure that the character encoding for transformation results is "UTF-16" when applying an XSLT stylesheet to a source XML Document, and outputting the transformation results.

- a. Make the character encoding of the source XML Document "UTF-16"
- b. Make the character encoding of the XSLT stylesheet "UTF-16"
- c. Designate "UTF-16" as the encoding attribute of the xsl:template element that is described first in the XSLT stylesheet
- d. Designate "UTF-16" as the encoding attribute of the xsl:output element

Correct answer : d

Question 6

Select which of the following is a correct XML declaration description.

- a. `<?xml version="1.0" encoding="">`
- b. `<?xml encoding="UTF-8">`
- c. `<?xml encoding="UTF-8" version="1.0"?>`

d. <?xml version="1.0"?>

Correct answer : d

Question 7

Select which two of the following are correct with respect to a DTD.

- a. Designate #PCDATA in an element type declaration to define an element in which only character data is included
- b. Designate CDATA in an element type declaration to define an element in which only character data is included
- c. Designate ANY in an element type declaration when you do not wish to have any content in an element
- d. Designate EMPTY in an element type declaration when you do not wish to have any content in an element

Correct answer : a, d

Question 8

Select which of the following files has the correct extension as a file storing an XML document.

- a. a.xml
- b. b.html
- c. c.txt
- d. All of the above

Correct answer : d

Question 9

Which of the following XML Schema definitions is not correct if you wish content element contents to be a

text string that does not include tabs (#X9), linefeeds (#xA) or carriage returns (#xD), or a text string that replaces tabs (#X9), linefeeds (#xA) and carriage returns (#xD) with blank space?

Assume that the XML Schema namespace prefix is "xs".

- a. <xs:element name="Content" type="xs:token" />
- b. <xs:element name="Content" type="xs:normalizedString" />
- c. <xs:element name="Content" type="xs:string" />
- d. <xs:element name="Content" type="xs:NMTOKEN" />

Correct answer : c

Question 10

Select which of the following elements should be used to sort the node set order in an XSLT stylesheet.

The XSLT namespace prefix is "xsl".

- a. xsl:sort
- b. xsl:orderBy
- c. xsl:order
- d. The node set order cannot be sorted in an XSLT stylesheet

Correct answer : a

Question 11

Select which two of the following are valid XML document with respect to "DTD", below.

"DTD"

<!DOCTYPE Calendar [

<!ELEMENT Calendar (Month,(Date,Day)+)*>

<!ELEMENT Month (#PCDATA)>

<!ELEMENT Date (#PCDATA)>

<!ELEMENT Day (#PCDATA)>

<!ATTLIST Calendar Year CDATA #IMPLIED>

a.

<Calendar Year="2007">

<Month>January</Month>

<Date>1</Date>

<Day>Monday</Day>

<Date>2</Date>

<Day>Tuesday</Day>

<Date>3</Date>

<Day>Wednesday</Day>

</Calendar>

b.

<Calendar Year="2007">

<Month>January

<Date>1</Date>

<Day>Monday</Day>

<Date>2</Date>

<Day>Tuesday</Day>

<Date>3</Date>

<Day>Wednesday</Day>

</Month>

</Calendar>

c.

<Calendar>

<Month>January</Month>

<Month>February</Month>

<Month>March</Month>

</Calendar>

d.

<Calendar/>

Correct answer : a, d

Question 12

Given "XML Document" below, select the namespace to which the Id attribute belongs.

"XML Document"

<ItemList xmlns="urn:example:Item"

xmlns:Item01="urn:example:Item01">

<Item01:ItemInformation Id="X01-0001">

<ItemName>XML SchemaProblemSet1</ItemName>

<Price>1500</Price>

</Item01:ItemInformation>

</ItemList>

- a. ItemInfo
- b. urn:example:Item
- c. urn:example:Item01
- d. The Id attribute does not belong to a namespace

Correct answer : d

Question 13

Select which of the following is a correct element type declaration for the occurrence of the "FirstName" element and the "LastName" element in that order as the child element of "Name" Element.

- a. <!ELEMENT Name (FirstName) >
- <!ELEMENT Name (LastName) >
- b. <!ELEMENT Name (FirstName, LastName) >
- c. <!ELEMENT Name (FirstName | LastName) >

d. <!ELEMENT Name (FirstName / LastName) >

Correct answer : b

Question 14

Select which two of the following are described as the top-level element in an XSLT stylesheet. The XSLT namespace prefix is "xsl".

a. xsl:stylesheet

b. xsl:transform

c. xsl:template

d. xsl:output

Correct answer : a, b

Question 15

Select which of the following is required for a well-formed XML document.

a. XML declaration

b. Schema definition

c. Element

d. Entity reference

Correct answer : c

Question 16

Select which three of the following must always be a well-formed XML document.

a. XHTML documents

b. XML Schema documents

c. XSLT style sheets

d. Output results from XSLT style sheets

Correct answer : a, b, c

Question 17

Select which two of the following are the XML Schema element element that defines a number of occurrences between 1 and 5 for the "Telephone_Number" element.

<xs:element name="Telephone_Number" type="xs:string" />

a. <xs:element ref="Telephone_Number" minOccurs="1" maxInclusive="5" />

b. <xs:element ref="Telephone_Number" minOccurs="1" maxOccurs="5" />

c. <xs:element ref="Telephone_Number" maxInclusive="5" />

d. <xs:element ref="Telephone_Number" maxOccurs="5" />

Correct answer : b, d

Question 18

Select which three of the following are valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Data" type="dataType" />

<xs:complexType name="dataType">

<xs:sequence>

<xs:element ref="DataFile" maxOccurs="100" />

</xs:sequence>

</xs:complexType>

<xs:element name="DataFile" type="dataFileType" />

<xs:complexType name="dataFileType">

<xs:sequence>

<xs:element ref="DataFileName" />

</xs:sequence>

</xs:complexType>

<xs:element name="DataFileName" type="xs:string" />

</xs:schema>

a.

<?xml version="1.0" encoding="UTF-8"?>

<Data>

<DataFile>

<DataFileName>accountList.xml</DataFileName>

</DataFile>

<DataFile>

<DataFileName>productList.xml</DataFileName>

</DataFile>

</Data>

b.

<?xml version="1.0" encoding="UTF-8"?>

<Data>

<DataFile>

<DataFileName>accountList.xml</DataFileName>

<DataFileName>productList.xml</DataFileName>

</DataFile>

</Data>

c.

<?xml version="1.0" encoding="UTF-8"?>

<Data>

<DataFile>

<DataFileName>accountList.xml</DataFileName>

</DataFile>

</Data>

d.

<?xml version="1.0" encoding="UTF-8"?>

<DataFile>

<DataFileName>accountList.xml</DataFileName>

</DataFile>

e.

<?xml version="1.0" encoding="UTF-8"?>

<Data>

<DataFile/>

</Data>

Correct answer : a, c, d

Question 19

Select the XPath expression that fits in ____ (1) ____ of “XSLT Stylesheet” when “XSLT Stylesheet” is applied to the given “XML Document” to output “Transformation Results”.

“XML Document”

<?xml version="1.0" encoding="UTF-8" ?>

<UserList>

<UserID Password="xxxxxx" authority="administrator">User01</UserID>

<UserID Password="zzzzzz" authority="general">User02</UserID>

<UserID Password="xyzxyz" authority="system">User03</UserID>

<UserID Password="yyyyyy" authority="general">User04</UserID>

</UserList>

“Transformation Results”

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<GeneralUserList>
```

```
<UserID>User02</UserID>
```

```
<authority>general</authority>
```

```
<UserID>User04</UserID>
```

```
<authority>general</authority>
```

```
</GeneralUserList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<GeneralUserList>
```

```
<xsl:apply-templates select="____ ( 1 ) ____" />
```

```
</GeneralUserList>
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<UserID><xsl:value-of select="text()" /></UserID>
```

```
<xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

a. `UserList/UserID[@authority='general']`

b. `UserList/UserID/@authority='general'`

c. `UserList/UserID/[@authority='general']`

d. There is no correct description, since there is an error in the XPath expressions

Correct answer : a

Question 20

Select which of the following is the correct combination of XML Schema elements when a simple type element is defined by the XML Schema, and restrictions have been placed on the simple type.

- a. element element, simpleType element, extension element
- b. element element, complexType element, extension element
- c. element element, simpleType element, restriction element
- d. element element, complexType element, restriction element

Correct answer : c

Question 21

Select which two of the following correctly describes the difference between HTML and XML.

- a. Under HTML, the names and meanings of tags have been predefined. Under XML, well-formed XML documents allow for the free description of tags.
- b. HTML is a grass roots de facto standard, while XML has been drafted by the W3C.
- c. HTML cannot mark up semantic information for data. XML can mark up semantic information for data.
- d. HTML is not a markup language. XML is a markup language.

Correct answer : a, c

Question 22

Select which two of the following elements may be used for conditional branch processes in an XSLT stylesheet.

- a. `xsl:case`
- b. `xsl:choose`
- c. `xsl:if`
- d. `xsl:switch`

Correct answer : b, c

Question 23

Select which of the following is a well-formed XML document.

a.

<Bylaw>

The final decision-making authority is the <Department>General Affairs

Department</Department><Position>Section Chief</Position>

</Bylaw>

b.

<Article>Article 2</Article>

<Bylaw>

The final decision-making authority is the General Affairs Department Section Chief.

</Bylaw>

c.

<Bylaw>

<Final_decision-making_authority Department="General Affairs Department" Position="Section Chief">

</Bylaw>

d.

<Bylaw>

<Final_decision-making_authority><Department>General Affairs Department<Position>Section

Chief</Department></Position></Final_decision-making_authority>

</Bylaw>

Correct answer : a

Question 24

Select which two of the following correctly explains the value that can be described in the "ItemPrice"

element content.

```
<xs:element name="ItemPrice" type="itemPriceType" />
```

```
<xs:simpleType name="itemPriceType">
```

```
<xs:restriction base="xs:int">
```

```
<xs:minInclusive value="500" />
```

```
<xs:maxInclusive value="2000000" />
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

a. The value "2000000" can be described, but the value "2000001" cannot be described

b. The value "1999999" can be described, but the value "2000000" cannot be described

c. The value "501" can be described, but the value "500" cannot be described

d. The value "500" can be described, but the value "499" cannot be described

Correct answer : a, d

Question 25

Select which is the best DTD definition to fulfill the "Requirements" below.

"Requirements"

☐ The "BookList" element has the child element "BookInfo"

☐ The "BookInfo" element has the child elements "BookName" and "ISBN," one of which occurs once

☐ The "BookInfo" element has a "BookID" attribute, which may be omitted

☐ The "BookInfo" element occurs once or more times

a.

```
<!ELEMENT BookList ( BookInfo )*>
```

```
<!ELEMENT BookInfo ( BookName | ISBN )>
```

```
<!ELEMENT BookName (#PCDATA)>
```

<!ELEMENT ISBN (#PCDATA)>

<!ATTLIST BookInfo BookID CDATA #IMPLIED>

b.

<!ELEMENT BookList (BookInfo)*>

<!ELEMENT BookInfo (BookName , ISBN)>

<!ELEMENT BookName (#PCDATA)>

<!ELEMENT ISBN (#PCDATA)>

<!ATTLIST BookInfo BookID CDATA #IMPLIED>

c.

<!ELEMENT BookList (BookInfo)+>

<!ELEMENT BookInfo (BookName | ISBN)>

<!ELEMENT BookName (#PCDATA)>

<!ELEMENT ISBN (#PCDATA)>

<!ATTLIST BookInfo BookID CDATA #IMPLIED>

d.

<!ELEMENT BookList (BookInfo)+>

<!ELEMENT BookInfo (BookName , ISBN)>

<!ELEMENT BookName (#PCDATA)>

<!ELEMENT ISBN (#PCDATA)>

<!ATTLIST BookInfo BookID CDATA #IMPLIED>

Correct answer : c

Question 26

Given “XML Document” below, select the namespace to which the ItemInformation element belongs.

“XML Document”

<ItemList xmlns="urn:example:Item"

```

xmlns:Item01="urn:example:Item01">

<ItemInformation Id="X01-0001">

<Item01:ItemName>XML SchemaProblemSet1</Item01:ItemName>

<Item01:Price>1500</Item01:Price>

</ItemInformation>

</ItemList>

```

- a. ItemInformation
- b. urn:example:Item
- c. urn:example:Item01
- d. ItemInformation element does not belong to a namespace

Correct answer : b

Question 27

Select which three of the following are incorrect when extending the definition of a simple type element that has been defined using XML Schema.

a.

```

<xs:element name="BookInformation" type="bookInfoType" />

<xs:simpleType name="newBookInfoType">

<xs:simpleContent>

<xs:extension base="bookInfoType">

<xs:attribute name="ISBN" type="xs:string" use="required" />

</xs:extension>

</xs:simpleContent>

</xs:simpleType>

```

b.

```

<xs:element name="BookInformation" type="bookInfoType" />

```

```
<xs:simpleType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:simpleType>
```

c.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:extension base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

d.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:complexType>
```


Correct answer : a, b, d

Question 28

Select the correct description that fits in _____ (1) _____ of “XSLT Stylesheet” to obtain “Transformation Results” when “XSLT Stylesheet” is applied to the given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<ProductList>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
```

```
<ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
```

```
</ProductList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="ProductList/ProductName" />
```

```
</xsl:template>
```

```
<xsl:template match="ProductName">
```

_____ (1) _____

```
</xsl:template>
```

```
</xsl:stylesheet>
```

“Transformation Results”

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

a.

```
<xsl:if test="@ProductID='X01-0001'">
```

```
<xsl:copy />
```

```
</xsl:if>
```

b.

```
<xsl:if test="@ProductID='X01-0001'">
```

```
<xsl:copy-of select="." />
```

```
</xsl:if>
```

c.

```
<xsl:if test="@ProductID='X01-0001'">
```

```
<xsl:copy select="." />
```

```
</xsl:if>
```

d.

```
<xsl:if test="@ProductID='X01-0001'">
```

```
<xsl:copy-of />
```

```
</xsl:if>
```

Correct answer : b

Question 29

Which two of the following are correct when including “&” character within an element value?

a.

The “&” character cannot be included within an element value

b.

Enclose the “&” character in single quotes (")

```
<Element1>you'&'me</element>
```

c.

Enclose the "&" character in double quotes (""")

```
<Element1>you"&"me</element>
```

d.

Use the predefined entity reference "&" for the "&" character

```
<Element1>you&amp;me</Element1>
```

e.

Use a CDATA section

```
<Element1><![CDATA[you&me]]></Element1>
```

Correct answer : d, e

Question 30

From the following, select which specification was drawn up for the purpose of defining XML schema.

a. XSLT

b. DTD

c. XML Schema

d. Namespaces in XML

Correct answer : b, c

Question 31

Select which of the following is a valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
```

```
<xs:complexType name="newPersonalInfoType">
```

```
<xs:complexContent>
```

```
<xs:extension base="personalInfoType">
```

```

<xs:sequence>

<xs:element ref="Birth_Date" />

<xs:element ref="Hobbies" maxOccurs="30" />

</xs:sequence>

</xs:extension>

</xs:complexContent>

</xs:complexType>

<xs:complexType name="personalInfoType">

<xs:sequence>

<xs:element ref="Name" />

<xs:element ref="Email_Address" />

</xs:sequence>

</xs:complexType>

<xs:element name="Name" type="xs:string" />

<xs:element name="Email_Address" type="xs:string" />

<xs:element name="Birth_Date" type="xs:string" />

<xs:element name="Hobbies" type="xs:string" />

</xs:schema>

```

a.

```

<?xml version="1.0" encoding="UTF-8"?>

<Personal_Information>

<Name>Taro Yamada</Name>

<Email_Address>tyamada@aaa.com</Email_Address>

<Birth_Date>1980-03-30</Birth_Date>

</Personal_Information>

```

b.

```
<?xml version="1.0" encoding="UTF-8"?>

<Personal_Information>

<Name>Taro Yamada</Name>

<Email_Address>tyamada@aaa.com</Email_Address>

<Birth_Date>1980-03-30</Birth_Date>

<Hobbies>Listening to music</Hobbies>

<Hobbies>Watching movies</Hobbies>

</Personal_Information>
```

c.

```
<?xml version="1.0" encoding="UTF-8"?>

<Personal_Information>

<Birth_Date>1980-03-30</Birth_Date>

<Hobbies>Listening to music</Hobbies>

<Hobbies>Watching movies</Hobbies>

<Name>Taro Yamada</Name>

<Email_Address>tyamada@aaa.com</Email_Address>

</Personal_Information>
```

d.

```
<?xml version="1.0" encoding="UTF-8"?>

<Personal_Information>

<Hobbies>Listening to music</Hobbies>

<Hobbies>Watching movies</Hobbies>

<Birth_Date>1980-03-30</Birth_Date>

<Email_Address>tyamada@aaa.com</Email_Address>
```

<Name>Taro Yamada</Name>

</Personal_Information>

Correct answer : b

Question 32

Select which of the following is incorrect with respect to XSLT stylesheets?

- a. Namespace may be used in XSLT stylesheets
- b. XSLT stylesheets must be well-formed XML documents
- c. The transformation rule of the XML document that is the source for the XSLT stylesheet and the transformation process model may be described in the XSLT stylesheet
- d. Only XML documents are allowed as output format for XSLT stylesheets

Correct answer : d

Question 33

Select which two of the following XML Schema documents correctly defines “Condition” below.

“Condition”

- ☐ Use an integer value for the “Quantity” element content
- ☐ The “Quantity” element has a “Unit” attribute, which must be described (may not be omitted)
- ☐ Use a text type value for the “Unit” attribute

a.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```
<xs:element name="Quantity" type="quantityType" />
```

```
<xs:complexType name="quantityType">
```

```
<xs:simpleContent>
```

```
<xs:extension base="xs:int" >
```

```
<xs:attribute name="Unit" type="xs:string" use="required" />
```

</xs:extension>

</xs:simpleContent>

</xs:complexType>

</xs:schema>

b.

<?xml version="1.0" encoding="UTF-8" ?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Quantity" type="quantityType" />

<xs:complexType name="quantityType">

<xs:attribute name="Unit" type="xs:string" use="required" />

</xs:complexType>

</xs:schema>

c.

<?xml version="1.0" encoding="UTF-8" ?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Quantity">

<xs:complexType>

<xs:simpleContent>

<xs:extension base="xs:int" >

<xs:attribute name="Unit" type="xs:string" use="required" />

</xs:extension>

</xs:simpleContent>

</xs:complexType>

</xs:element>

</xs:schema>

d.

```
<?xml version="1.0" encoding="UTF-8" ?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Quantity">

<xs:complexType>

<xs:attribute name="Unit" type="xs:string" use="required" />

</xs:complexType>

</xs:element>

</xs:schema>
```

Correct answer : a, c

Question 34

Select which two of the following are a well-formed XML document.

a.

```
<item color="white" color="yellow">Paint</item >
```

b.

```
<item color='red' price="100"/>
```

c.

```
<item color="red"
price="100">
```

Paint

```
</item>
```

d.

```
<item color="blue">
```

Paint

```
</item price="100">
```


Correct answer : b, c

Question 35

Select which of the following is the correct XSLT stylesheet to output “Transformation Results” sorted by the Password attribute value for the given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>

<UserList>

<UserID Password="xxxxxx" Delete="1">User01</UserID>

<UserID Password="zzzzzz" Delete="0">User02</UserID>

<UserID Password="xyzxyz" Delete="0">User03</UserID>

<UserID Password="yyyyyy" Delete="0">User04</UserID>

</UserList>
```

“Transformation Results”

User01/User03/User04/User02/

c c a b d d

a d d c

a a d d

b a b c

a b c b

d a c d

a c a c

b c a

a d c b

a b d b

d e b

c b d a

c

a.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:sort select="@Password" data-type="text" />
```

```
<xsl:apply-templates select="UserList/UserID" />
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<xsl:value-of select="." /><xsl:text></xsl:text>
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

b.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="UserList/UserID" />
```

```
<xsl:sort select="@Password" data-type="text" />
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<xsl:value-of select="." /><xsl:text></xsl:text>
```

```
</xsl:template>
```

</xsl:stylesheet>

c.

<?xml version="1.0" encoding="UTF-8" ?>

<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:output method="text" />

<xsl:template match="/">

<xsl:apply-templates select="UserList/UserID">

<xsl:sort select="@Password" data-type="text" />

</xsl:apply-templates>

</xsl:template>

<xsl:template match="UserID">

<xsl:value-of select="." /><xsl:text>/</xsl:text>

</xsl:template>

</xsl:stylesheet>

d.

<?xml version="1.0" encoding="UTF-8" ?>

<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:output method="text" />

<xsl:template match="/">

<xsl:apply-templates select="UserList/UserID" />

</xsl:template>

<xsl:template match="UserID">

<xsl:sort select="@Password" data-type="text">

<xsl:value-of select="." /><xsl:text>/</xsl:text>

</xsl:sort>

</xsl:template>

</xsl:stylesheet>

Correct answer : c

Question 36

Select which two of the following are correct description method for an XML element.

- a. A child element cannot have the same name as a parent element
- b. Only one root element may be described in a single XML document
- c. An attribute cannot be designated for an empty element
- d. A numeral cannot be used as the first character in an element name

Select any 2 option.

Correct answer : b, d

Numerals, periods, and hyphens cannot be used as the first character for element names, attribute names.

The correct answers are b and d.

Question 37

Select which of the following is a correct XML Schema definition if you must designate an integer less than

or equal to 0 as the content of the "Discount_Amount" element.

Assume that the XML Schema namespace prefix is "xs".

- a. <xs:element name="Discount_Amount" type="xs:negativeInteger" />
- b. <xs:element name="Discount_Amount" type="xs:positiveInteger" />
- c. <xs:element name="Discount_Amount" type="xs:"nonNegativeInteger" />
- d. <xs:element name="Discount_Amount" type="xs:nonPositiveInteger" />

Correct answer : d

Question 38

The following sentences describe characteristics of XML schema as compared to DTD. Select which of the

following is not correct.

- a. Since the specification is simple, using XML schema rather than DTD allows for shorter XML statements when defining the same schema structure.
- b. XML schema is a well-formed XML document.
- c. XML schema provides for various data types, including date type, integer type, etc.
- d. XML schema is compatible with XML namespace.

Correct answer : a

Question 39

Select which of the following is the correct transformation result when “XSLT Stylesheet” is applied to the

given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<UserList>
```

```
<UserID Password="xxxxxx" authority="administrator">User01</UserID>
```

```
<UserID Password="zzzzzz" authority="general">User02</UserID>
```

```
<UserID Password="xyzxyz" authority="system">User03</UserID>
```

```
<UserID Password="yyyyyy" authority="general">User04</UserID>
```

```
</UserList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<SystemUserList>
```

```
<xsl:apply-templates select="UserList/UserID" />
```

```
</SystemUserList>
```

```

</xsl:template>

<xsl:template match="UserID">

<xsl:if test="@authority='system'">

<UserID><xsl:value-of select="text()" /></UserID>

<xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>

</xsl:if>

</xsl:template>

</xsl:stylesheet>

```

a.

```

<?xml version="1.0" encoding="UTF-8"?>

<UserID>User03</UserID>

<authority>system</authority>

```

b.

```

<?xml version="1.0" encoding="UTF-8"?>

<SystemUserList>

<UserID>User03</UserID>

</SystemUserList>

```

c.

```

<?xml version="1.0" encoding="UTF-8"?>

<SystemUserList>

<authority>system</authority>

<UserID>User03</UserID>

</SystemUserList>

```

d.

```

<?xml version="1.0" encoding="UTF-8"?>

```

<SystemUserList>

<UserID>User03</UserID>

<authority>system</authority>

</SystemUserList>

Correct answer : d

Question 40

Select which of the following is a well-formed XML document.

a.

<Product_Information ProductID="X01-00001" Inventory="10">

b.

<Product_Information ProductID="X01-00001" Inventory="10">

<Product_Name>XML Certification Exam Workbook 1</Product_Name>

</Product_Information>

c.

<Product_Information ProductID="X01-00001" Inventory="10">

<Product_Name>XML Certification Exam Workbook 1</Product_Name>

</Product_Information Price="3000" Tax_Category="Tax Excluded">

d.

<Product_Information ProductID="X01-00001"

Inventory="2007/04/01 10"

Inventory="2007/04/02 5" >

<Product_Name>XML Certification Exam Workbook 1</Product_Name>

</Product_Information>

Correct answer : b

Question 41

When "XML Document" is read by an XML processor, what value does the entity reference "&food" replace?

Which of the following is the correct answer?

Assume that the XML processor is able to read "food.txt."

"XML Document"

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!DOCTYPE data [
```

```
<!ELEMENT data (#PCDATA|food)*>
```

```
<!ELEMENT food (#PCDATA)>
```

```
<!ENTITY food SYSTEM "food.txt">
```

```
]>
```

```
<data>I like to eat &food; </data>
```

food.txt

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<food>pasta</food>
```

a. food.txt

b. pasta

c.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<food>pasta</food>
```

d. <food>pasta</food>

Correct answer : d

Question 42

Which two of the following are correct description when double quote (") is included in an attribute value?

a.

Enclose the attribute value in single quotes

```
<Element1 Attribute1=' "Value 1"' />
```

b.

Enclose the attribute value in double quotes

```
<Element1 Attribute1=" "Value 1" "/>
```

c.

Replace the double quote (") with the predefined entity reference "","

```
<Element1 Attribute1="&quot;Value1&quot;" />
```

d.

Since double quote (") is defined as characters that enclose the attribute value, they cannot be used as an

attribute value

Correct answer : a, c

Question 43

Select which of the following is correct as a definition adding a "Mobile" element to the

"Personal_Information" element defined in the given "XML Schema Document".

"XML Schema Document"

```
<xs:element name="Personal_Information" type="personalInfoType" />
```

```
<xs:complexType name="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Name" />
```

```
<xs:element ref="Date_of_Birth" />
```

```
<xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
```

```
</xs:sequence>
```

```
</xs:complexType>
```

```
<xs:element name="Name" type="xs:string" />
```

```
<xs:element name="Date_of_Birth" type="xs:string" />
```

```
<xs:element name="Hobbies" type="xs:string" />
```

a.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
```

```
<xs:complexType name="newPersonalInfoType">
```

```
<xs:complexContent>
```

```
<xs:restriction base="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Mobile" />
```

```
</xs:sequence>
```

```
</xs:restriction>
```

```
</xs:complexContent>
```

```
</xs:complexType>
```

```
<xs:element name="Mobile" type="xs:string" />
```

b.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
```

```
<xs:complexType name="newPersonalInfoType">
```

```
<xs:complexContent>
```

```
<xs:restriction base="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Name" />
```

```
<xs:element ref="Date_of_Birth" />
```

```
<xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
```

```
<xs:element ref="Mobile" />
```

```
</xs:sequence>
```

</xs:restriction>

</xs:complexContent>

</xs:complexType>

<xs:element name="Mobile" type="xs:string" />

c.

<xs:element name="Personal_Information" type="newPersonalInfoType" />

<xs:complexType name="newPersonalInfoType">

<xs:complexContent>

<xs:extension base="personalInfoType">

<xs:sequence>

<xs:element ref="Mobile" />

</xs:sequence>

</xs:extension>

</xs:complexContent>

</xs:complexType>

<xs:element name="Mobile" type="xs:string" />

d.

<xs:element name="Personal_Information" type="newPersonalInfoType" />

<xs:complexType name="newPersonalInfoType">

<xs:complexContent>

<xs:extension base="personalInfoType">

<xs:sequence>

<xs:element ref="Name" />

<xs:element ref="Date_of_Birth" />

<xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />

```
<xs:element ref="Mobile" />

</xs:sequence>

</xs:extension>

</xs:complexContent>

</xs:complexType>

<xs:element name="Mobile" type="xs:string" />
```

Correct answer : c

Question 44

Select which of the following correctly describes the purpose of using XML namespace.

- a. Defines the XML document data structure.
- b. Performs operations on XML Data from the application.
- c. Transforms XML documents to HTML documents.
- d. Avoids having conflicting elements of the same name but different meaning in a single XML document.

Correct answer : d

Question 45

Select which of the following is the correct value for the ATT attribute when the following XML document is

read by an XML processor?

“XML Document”

```
<?xml version="1.0"?>

<!DOCTYPE config [

<!ELEMENT config (name, user)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT user (#PCDATA)>

<!ATTLIST config ATT CDATA "FALSE">
```

]>

<config ATT="TRUE">

<name>test.ini</name>

<user>taro</user >

</config>

- a. NULL value
- b. "TRUE"
- c. "FALSE"
- d. None of the above; throws an error

Correct answer : b

Question 46

Given “XML Document” below, select the namespace to which the BirthDay element belongs.

“XML Document”

<List xmlns="urn:example:Data"

xmlns:Data01="urn:example:data01">

<Data01:data>

<Name age="30">TaroYamada</Name>

<BirthDay xmlns="">1977-03-19</BirthDay>

</Data01:data>

</List>

- a. urn:example:Data
- b. urn:example:data01
- c. urn:example:DataⓂurn:example:data01
- d. The BirthDay element does not belong to a namespace

Correct answer : d

Question 47

Select the correct description that fits in _____ (1) _____ of “XSLT Stylesheet” to obtain the transformation result “X01-0001X01-0002X01-0003X01-0004” when “XSLT Stylesheet” is applied to the given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<ProductList>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
```

```
<ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
```

```
</ProductList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="ProductList/ProductName" />
```

```
</xsl:template>
```

```
<xsl:template match="ProductName">
```

```
_____ ( 1 ) _____
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

“Transformation Results”

X01-0001X01-0002X01-0003X01-0004

- a. <xsl:value-of select="ProductList/ProductName/@ProductID" />
- b. <xsl:value-of select="ProductList/ProductName/ProductID" />
- c. <xsl:value-of select="@ProductID" />
- d. <xsl:value-of select="ProductID" />
- e. There is no correct template for outputting Transformation Results

Correct answer : c

Question 48

Select which two of the following are correct with respect to the occurrence of element “a” and a child element defined by the following element type declaration. Assume child elements “w”, “x”, “y”, and “z” are empty elements.

“Element Type Declaration”

<!ELEMENT a ((w | x)+ , (y , z)*)>

a.

<a>

<w/>

<y/>

<z/>

b.

<a>

<w/>

<x/>

<z/>

<y/>

c.

<a>

<x/>

<y/>

<z/>

d.

<a>

<x/>

<z/>

<y/>

Correct answer : a, c

Question 49

Select which of the following is a valid XML document with respect to the external subset DTD file

“item.dtd” below.

“item.dtd”

<?xml version="1.0" encoding="UTF-8"?>

<!ELEMENT ProductInformation (ProductName,Price)>

<!ELEMENT ProductName (#PCDATA)>

<!ELEMENT Price (#PCDATA)>

a.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<Price/>

</ProductInformation>

b.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName/>

</ProductInformation>

c.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName>

<Price/>

</ProductName>

</ProductInformation>

d.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName/>

<Price/>

</ProductInformation>

e.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<Price/>

<ProductName/>

</ProductInformation>

Correct answer : d

Question 50

Select which of the following XML Schema definitions always results in the content of “ProductGenre” being

“Bag”.

a.

```
<xs:element name="ProductGenre"
type="xs:string" default="Bag" />
```

b.

```
<xs:element name="ProductGenre"
type="xs:string" fixed="Bag" />
```

c.

```
<xs:element name="ProductGenre"
type="xs:string" use="Bag" />
```

d.

```
<xs:element name="ProductGenre"
type="xs:string" optional="Bag" />
```

Correct answer : b

1. How should servlet developers handle the HttpServlet’s service() method when extending HttpServlet?

a. They should override the service() method in most cases.

- b. They should call the service() method from doGet() or doPost()
- c. They should call the service() method from the init() method.
- d. They should override at least one doXXX() method(such as doPost()).

2. Cookie is _____

- a.
- b. Servlet Attribute
- c. A plain text that resides on client machine
- d. An encrypted file sent to the server by client

3. Which statements about disabling scripting elements are true?

- a. You can't disable scripting via the DD.
- b. You can only disable scripting at the application level.
- c. You can disable scripting programmatically by using the isScriptingEnabled page directive attribute.
- d. You can disable scripting via the DD by using the <scripting-invalid> element.

4. Question

a. \${param[0]}

c c a b d d

a d d

c a a d

d b a b

c a b c

b d a c d

a c a c

b c a

a d c b

a b d b

d e b

c b d a

c b c

c b d d

a d b d a

c c d b d

c a c d

b. `${param.[0]}`

c. `${param['0']}`

d.

5. Singleton is _____

a. Behavioral pattern

b. Creational

c. Structural

d. Integration

6. `getInitParameterNames()` returns

a. String

b. String[]

c. Enumeration

d. ArrayList

7. Significance of 'errorPage' in page directive?

a. The error in current page leads to errorPage value.

b.

c.

d.

8. Java Beans consists of getter and setter methods. True

9. Init() can be overridden. True

10. Jsp:param

11. Which is best for business logic?

a. Servlet

b. JSP

c. Ajax

d. DataBase

12. Model 1 architecture is used for large applications. False

13. Which of following is true?

a. Jsp is independent of servlet code

b. Servlet is independent of JSP page

c.

d.

14. What related to sendRedirect() is true?

a. When response is committed, it causes IllegalAccessException

b.

c.

d.

15. Which of the following related to POST are true?

a. POST can send unlimited data

b. POST cannot send binary data

c.

d.

16. Eliminate duplicate code... transfer object

17. Construct a pattern of multiple views... Composite view

18. ... View delegate

19.

a. Scriptlet

b. Expression

c. Directive

d.

e.

20. "When is it not possible to call the sendRedirect() method of response object?

Select one correct answer from the following." 1

a. After creating a connection to the Database.

b. After the response is already committed.

c. After iterating through the resultSet object

d. After opening an I/O stream

21. For including "text/plain" in jsp directive...

a. < contentType="text/plain">

22. Listener for HttpSession persists..

a. HttpSessionBindingListener

b. HttpSessionListener

c.

d.

23. How do you get information about init parameter?

a. <init-param>blah</init-param>

b. ServletContext().getInitParameter();

c.

d.

```
24. HttpSession sess=ServletConfig.getSession();
```

```
Int counter=sess.getAttribute("counter");
```

```
ServletConfig sc=sess.setAttribute("counter",counter++);
```

Check the options?

1)Which is correct?

a)Override init() to cleanup db connection

b)Override init() to set an initparam

c)we can override init() but don't override

d)To fetch initParam and execute an initial code

2)Singleton is

a. Creational

b. Structural

c. Behavioral

3)How to set a header to response

a. HttpServletResponse.setHeader("n","v");

b. HttpServletResponse.setHeader("n");

c. HttpServletResponse.setHeader("v");

d. Cannot do it

4)JSTL core iteration custom tags(choose 2)

a. Body of tag may contain ELCODE, but no scripting code

b. Iteration over arrays, collection, map and tags

c. Iteration over map but only key of object map

d. Mapping may be used in tag body used

e. When looping over collection a loop statement

5) HttpSession s=.....

s.setAttribute("x","xv");

s.invalidate();

res.getWriter().print(s.getAttribute("x"));

output?

a. Value=null

b. illegalStateException

c. InvalidSession

d. Value=xv

6)true(Choose 3)

a. <jsp:include>-static

b. Bad practice to include one JSP:include

c. <%@include %>-static

d. Through JSP include HTML can be included

e. Through JSP include JSP alone can be included

7)Scripting allowed in JSP by default(True/false)

8)Service() How many times called in life?

a. None

b. Once for every req

c. Once

d. None if init() is overridden

9)<taglib>

<taglib-uri>http://mytaglib.com</taglib-uri>

<taglib-loc>http://your.com</taglib-loc>

</taglib>

- a. <taglib-include> to be used instead of <taglib-loc>
- b. Invalid syntax of <taglib-uri>
- c. Malformed xml
- d. The value of <taglib-loc> cannot be an absolute URI

10)Servletconfig comes into picture

- a. After init()
- b. After service()
- c. After constructor
- d. After servlet loaded

11)Servlet gets binary stream for writing an image or other binary type to HttpServletResponse

- a. Getoutputstream()
- b. getBinary Stream()
- c. getwriter()
- d. getPrintWriter()

12)When control transfer from p1.jsp to p2.jsp,the scope of the data in p1.jsp will be available in p2?

- a. Yes
- b. No
- c. Yes but in some conditins no
- d. No but in some conditions yes

13)Business tier denotes (Choose 3)

- a. BusinessDelegate
- b. Session Façade
- c. Transfer Object
- d. Service to worker

e. DAO

14)Servlet life cycle

15>true?

a. JSP alone serves client request

b. None

c. JSP cannot stand alone

d. Servlet request to make JSP more efficient

16)To handle business logic of a web app is in

a. AJAX

b. Servlets

c. DB

d. JSP

17)servlet as main() as entry(T/F)?

18)JSp active resource

a. Processing capability at server mac

b. Processing capability at client mac

c. Java script along with HTML

d. None

19)Scriptlet code syntax error in which part of JSP life cycle is identified

a. Compilation

b. Translation

c. Execution

d. Container doesnt mind scriptcode syntax error

20)Design pattern—shielding clients from important of business services

a. MVC

- b. MVC2
- c. Business delegate
- d. Transfer object

21)NOT MVC

- a. JSF
- b. Tiles
- c. Struts
- d. SPRING

22)if age=31 ,wht will be the output of \${PARAM AGE ge 25}?

- a. 31
- b. 25
- c. True
- d. 1

23)JSP executed at

- a. client
- b. server
- c. both

24)EL implicit=JSP implicit objects(T/F)

25)Presentation tier pattern?

- a. DAO
- b. FC
- c. Server locator
- d. Session Facade

26)Servlet A calls servlet B of same container but different applications ,now data can be accessed in servlet B through

- a. REQUEST
- b. RESPONSE
- c. CONTAINER
- d. SESSION

1) Not present in Meta-tag

Options: http-equiv, name, value, content

2) Expression language is used to print something on the screen

3) if(" string ".trim()=="string")

s.o.p("equal");

else

s.o.p("not equal");

Ans: not equal

4) override the init() method

5) _jspService

6) licensed : controller

7) iterator has previous() method: false

8) predefined values-: parameterization

9) 1000 users accessing SampleServlet : 1 object will create

10) <@ include file="Header.html">

11) uncaught throwable object Exception

12) Not mandatory ? Null pointerException

13) what are the checked exception ? ClassCastException, InterruptedException

14) parameterized value? prepared statement

15) Apply style to text or part of text ? span

16) Divide page into two rows ? rows 50%50%

17) Divide page into two halves? rows 50%50%,cols 50%50%

18) document.getElementsByTagName("p")[0].innerText

19) Code? display method display method 10 10

20) select (2+3*4/2-5) from dual ? 3

21) select count(*) from employee where sal >(select Avg(sal) from Employeee)

22) create or replace proc_name (emp_name varchar2)as

Declare

Cursor c1 is

Select * from Emp

Where e_name=emp_name

Begin

For rec in c1 Loop

d.o.p(rec.e_name.....)

end Loop

end

23) do post-large amount of data

24) user name will be passed to the servlet

Get method

25) attribute? adds behavior of the tag

26)Jsp translated to servlet-> compiled->instantiated

27) person don't want to share the content ? WEB_INF

28) valid variables-Javascript ? _num,num

29) create session ? request.getSession()

30)when a interface is implemented by class and the class is extended by another class,the second class should override all the method in the first class

Ans? All the above

31)Runnable r=new Runnable();

Thread t=new thread(r)

? Compiler error

32) Hardware bench marking? true

33) A. Applet server side application

B. Servlet client side

A and B false

34) 3-tier architecture

*Application server

*Database server

*Web server

35) Real world volums? load testing

36) rapidly varying users? spike testing

37) wrapper class int,short,char in switch ? true

38) transaction response time related to throughput in loadtesting ? true

39) objectiutputstream deserializes the object which was previously serialized by

objectoutputstream? true

40)A. static selerializable

B. traniciant can not be serializable

A.false B.true

41)collection ques

* ordered set of elements with different data types

42) i) PL/SQL declaration part, execution and exception.

II) PL/Sql block can be anonymous or named.

iii) PL/SQL block converted by PL/SQL engine and then it is put to client side or server side

43) Array a = new ArrayList();

a.add(10);

a.add(23);

a.add("abc");

HashSet as = new HashSet();

as.add("abc");

as.add(23);

a.addAll(as);

a.removeAll(as);

System.out.println(a);

Ans: [10]

44. if(((i++)>12)&&(++i<15))

S.O.P(i);

Else

S.O.P(i);

Ans:11

45. Automatically create unique index for the primary key column

46. Garbage collection cannot be forced.

47. Not implemented by RequestDispatcher

Ans: redirect

Dispatch

48. 1 = 32;

Char c = 65;

Char a = i+c;

```
S.o.p(a);
```

Ans: a;

```
1. Long l=50;
```

Ans: Compile time error(type mismatch)

```
2. Byte a=10;
```

```
Byte b=15;
```

```
sop(a+b);
```

Ans: 25

```
3. int i=12,j=13,k=0;
```

```
k=++i-j--;
```

```
sop(i);
```

```
sop(j);
```

```
sop(k);
```

Ans: 13

12

0

```
4. try
```

```
{
```

```
system.exit(0);
```

```
}
```

```
finally
```

```
{
```

```
sop("Hello");
```

```
}
```

Ans: NO output(finally will no execute)

5. which are runtime (checked) exceptions?

- (a). Null pointer exception
- (b). Array index out of bound exception
- (c). File not found exception
- (d). SQL exception
- (e). I/O exception

Ans: a, b

6. Enumeration is having remove method (t/f)?

Ans: False

7. class parent

```
{  
    protected void disp()  
{  
    sop("Parent class");  
}  
    void base()  
{  
    sop("Hello");  
    disp();  
}  
}  
  
class child extends parent  
{  
    protected void disp()  
{
```

```
sop("Child class");
```

```
}
```

```
psvmain()
```

```
{
```

```
child c=new child();
```

```
c.base();
```

```
}
```

```
}
```

Ans:Hello

Child class

8. public interface abc

```
{
```

```
/*code*/ int a=10;
```

```
}
```

Ans: public, final, and static

9. public static void main(String[] args)

```
{
```

```
String str =
```

```
"India is a/n developing country.";
```

```
StringTokenizer strTok =
```

```
new StringTokenizer(str);
```

```
System.out.println(strTok.countTokens());
```

```
}
```

Ans: 5

10. Which one of the following lines produces error

<%! int a=10;%>Line-1

<% int b=7;%>Line-2

<%=a*b;%>Line-3

Ans: Line-3

11. which is more secure comparing get and post?

Ans: post

12. `sop(10+"20.392");`

Ans: 1020.392

1. Syntax of <c:url>

2. Where library descriptor file stored?

a. META-INF/tlds

b. META-INF/

c. WEB-INF/

d. WEB-INF/tlds

3. True or false $\frac{8}{0} = \text{infinity}$ —Ans: true

4. <pre:tag1>

<%=name%>

</pre:tag1>

a. jsp

b. Tagdependant

c. Empty

d. Scriptless

5. Your servlet class extends.....

a. HttpServlet

b. Servlet

c. GenericServlet

6. Which implicit object is used unique identifier user....

a. Request

b. Response

c. Application

d. Session

7. How you can set session timeout for 2 minutes??

Answer:

a. `<session-timeout>2</session-timeout>`

b. `Session.setMaxInactiveSession(120);`

8. Which listener is used when session is created??

Answer: `HttpSessionListner`

9. Which listener attribute is used for listerner tag??

Answer: `<listener-class>`

10. Which used for print el `${var}`

Answer : `<c:url value=" ">`

11. Choose the right

Answer : a. `<jsp:include page="">`

b. `<%@ include file="" %>`

12. `<jsp:setproperty>` syntax

13. Jsp lifecycle...

14. Translation and compilation is done at..

a. Execution

b. Deployment

c. Undeployment

d. None of the above

15. Which is used when cookies not used in session management?

Answer: url rewriting not cookies

16. Which is used to extract the values of request parameter address?

Answer: `${param.address}`

17. Feature not contained in container

a. Servlet life manager

b. Session management

c. Application controller

d. Multithreading support

18. One program of session to display output

19. . You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page.

This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

20. Select two options to retrieve first value in request variable

Answer: `request.getParameter("...")`;

`request.getParameterValues("...")[0]`;

21. How to access the variables fort in variable name using EL

Answer: `${name["fort"]}`

`${name.fort}`

22. Which header is header used to retrieve the info of "User-agent"?

Answer: `response.getHeader("User-Agent")`;

1) `Integer.MAX_VALUE`

true or false

2) EL expressions used for?

3) What is default scope of `JSP:useBean` or `JSP:getProperty`?

4) Session timeout is in minutes and programmatically is in Seconds

5) Request dispatchers object

`request`, `include`, `forward`

6) How to store java primitive types in session?

7) `<! x=4;>`

`<% y=4;%>`

Solution is `<%=x*y; %>`

Ans: syntax error at line 3..

1. do get method syntax ..? ans : `doGet(HttpServletRequest request, HttpServletResponse response)`

2. request is the object of ..?

Ans: `HttpServletRequest`

3. EL consider null values as zero..? ans: true //not sure

4. `<%=a=6%>`

<%b=3%>

<%a=5%>

What is the result of <%=a*b%> Ans: 15

5.how will u send cookie in response..?

Ans: response.addCookie(new cookie(" ", " "))

6.where is the <servlet-name> element is present in DD.

Ans: in <servlet> tag and in <servlet-mapping> tag

7.which methods can be overridden in JSP..?

Ans: JSPinit(); and JSPdestroy();

8.if servlet class implements single thread model then what will happen..?

Ans: only one thread will run for servlet

9.if session variable s is not in session and \${true and s[0]}...? Ans: false

10.http session session= request.getSession(true);

Session.setAttribute(" ", " ")

setMaxInactiveSession(0);

if(session.is New())

{

-----//getAttribute...

}

Else

{

}

Ans: nothing will display,session will expire.... // not sure

11.

Ans: 1. Session timeout set in DD is in minute..

2. Session timeout set in programmatically is in seconds

13. what is the return type of getattribute method..? ans: object

14. one question was that there were two custom tags Tag1 and Tag2(which is extending from Tag1) of which Body content should not be empty. They have asked how we can implement these tags in our code and they have given options of different possibilities.

Ans: //Not sure just go through it once

```
<tag1>
```

```
<tag2>
```

```
Addsgada
```

```
</tag2>
```

```
</tag1>
```

15. The question is on how to set init param value=10 of a using <jsp:setProperty> ?

They have given different combination , go through syntax of <jsp:setProperty>.

16. What is the default scope of useBean?

Ans: Page //not sure

17. Go through the syntax of <jsp:setProperty>, <jsp:getProperty> and useBean?

18. Syntax of import file.... E.g <%@ page import="java.util.* , java.awt.*"%>

19. what we use for conditional check in <c:>

a. Cond

b. test

c. check

d. choose / /may be this was option

I don't remember the complete question but Conditional check in <c:if> or <c:choose> etc....

20. question: Which are true[choose any two]

Ans: a. ServletConfig is one per Servlet

B. ServletContext IS ONE PER APPLICATION

21. Which argument we pass to Servlet Init method?

Ans: ServletConfig

1. Without cookies? -URL writing.. manual/automatic?

2. implicit objects -application, exception, PageContext

3. ServletConfig- One per Servlet, ServletContext one per application

5. Choose the right

<jsp:include page="">

b. <%@ include file="" %>

7. You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page. This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

8. How to store java primitive types in session? longattribute

9. Select two options to retrieve first value in request variable

`request.getParameter(".");`

`Request.getParameterValues("..")[0];`

20. client req depends on only jsp/only servlet/both

21. if information is forwarded from one page to other.. can v access all the info

22. import option is used to import html/java pkg or class/jsp page/any of the options

23. same ques ans is implementing the singlethread interface

24. to start a servlet we need- listener

23. Where library descriptor file stored?

e. META-INF/tlds

f. META-INF/

g. WEB-INF/

h. WEB-INF/tlds

24. True or false $\{8/0\} = \text{infinity}$ —Ans: true

25. `<pre:tag1>`

`<%=name%>`

`</pre:tag1>`

e. jsp

f. Tag dependant

g. Empty

h. Scriptless

26. Your servlet class extends.....

d. HttpServlet

e. Servlet

f. GenericServlet

27. Which implicit object is used unique identifier user....

- e. Request
- f. Response
- g. Application
- h. Session

28. How you can set session timeout for 2 minutes??

Answer:

- c. `<session-timeout>2</session-timeout>`
- d. `Session.setMaxInactiveSession(120);`

29. Which listener is used when session is created??

Answer: `HttpSessionListner`

30. Which listener attribute is used for listerner tag??

Answer: `<listener-class>`

31. Which used for print el `${var}`

Answer : `<c:url value=" ">`

32. Choose the right

Answer : a. `<jsp:include page="">`

b. `<%@ include file="" %>`

33. `<jsp:setproperty>` syntax

34. Jsp lifecycle...

35. Translation and compilation is done at..

- e. Execution
- f. Deployment
- g. Undeployment
- h. None of the above

36. Which is used when cookies not used in session management?

Answer: url rewriting not cookies

37. Which is used to extract the values of request parameter address?

Answer: `${param.address}`

38. Feature not contained in container

e. Servlet life manager

f. Session management

g. Application controller

h. Multithreading support

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This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

40. Select two options to retrieve first value in request variable

Answer: `request.getParameter(" ...")`;

```
Request.getParameterValues(" ")[0];
```

41. How to access the variables fort in variable name using EL

Answer: `${name["fort"]}`

`${name.fort}`

42. Which header is header used to retrieve the info of "User-agent"?

Answer: `response.getHeader("User-Agent");`

1) $\frac{8}{0} = \text{infinity}$

5) Request dispatchers object

request, include, forward

7) `<! x=4;>`

`<% y=4;%>`

Solution is `<%=x*y; %>`

Ans: syntax error at line 3..

1. Which collection class allows you to access its elements by associating a key with an element's value, and provides synchronization?

a. `java.util.SortedMap`

b. `java.util.TreeSet`

c. `java.util.Hashtable`

d. None

Ans---c

2. Suppose that you would like to create an instance of a new Map that has an iteration order that is the same as the iteration order of an existing instance of a Map. Which concrete implementation of the Map interface should be used for the new instance?

a. `TreeMap`

- b. HashMap
- c. LinkedHashMap
- d. The answer depends on the implementation of the existing instance.

Ans ----c

3. Which loop automatically iterates over the specified object and reads values one-by-one ?

- a. For
- b. For Each
- c. Iterator
- d. ListIterator

Ans ----d

4. Which of the following can be used only with List?

(Choose more than one)

- a. For
- b. For Each
- c. Iterator
- d. ListIterator

Ans ---d,a

5. Which of the following are Iterator Interface methods?

- a. hasNext()
- b. remove()
- c. nextToken()
- d. next()
- e. hasMoreElements()

ans ----a,b,d

6. Which class does not override the equals() and hashCode() methods, inheriting them directly from class Object?

- a. java.lang.String
- b. java.lang.Double
- c. java.lang.StringBuffer
- d. java.lang.Character

ans --c

7. Which of the following can be used to traverse the list in either direction, modify the list during iteration and obtain the iterator's current position in the list

- a. For
- b. Iterator
- c. For Each
- d. ListIterator

Ans ---d

8. Which of the following can read elements by specifying the index using the get() method

- a. For
- b. Iterator
- c. For Each
- d. ListIterator

Ans ----a

9. A collection is a container that groups multiple elements into multiple units

- a. True

b. False

Ans ----b

10. Choose the correct description of method keyset()

- a. Returns a set with all keys contained in the map
- b. Returns a collection with all the values contained in this map
- c. Returns a set view of the mappings contained in this map
- d. Returns a collection with all the values contained in this map

Ans ----a

11. Which of the following is Thread Safe ?

- a. Hash Table
- b. Hash Map
- c. Tree Map
- d. None

Ans----a

12. Which map interface stores the values in sorted order according to key

- a. Hash Map
- b. Hash Table
- c. Tree Map
- d. None

Ans ---c

13. Which collection class allows you to grow or shrink its size and provides indexed access to its elements, but whose methods are not synchronized?

- a. java.util.HashSet
- b. java.util.LinkedHashSet

c. java.util.List

d. java.util.ArrayList

ans ---d

14. Which interface does java.util.Hashtable implement?

a. Java.util.Map

b. Java.util.List

c. Java.util.HashTable

d. Java.util.Collection

Ans----a

15. Which interface provides the capability to store objects using a keyvalue pair?

a. java.util.Map

b. Java.util.Set

c. Java.util.List

d. Java.util.Collection

Ans-----a

16. What will be the output of the program?

```
import java.util.*;
```

```
class I
```

```
{
```

```
    public static void main (String[] args)
```

```
    {
```

```
        Object i = new ArrayList().iterator();
```

```
        System.out.print((i instanceof List)+" ");
```

```
        System.out.print((i instanceof Iterator)+" ");
```

```
System.out.print(i instanceof ListIterator);
```

```
}
```

```
}
```

a. Prints: false, false, false

b. Prints: false, false, true

c. Prints: false, true, false

d. Prints: false, true, true

Ans-----c

17.

```
public class Test
```

```
{
```

```
    private static float[] f = new float[2];
```

```
    public static void main (String[] args)
```

```
    {
```

```
        System.out.println("f[0] = " + f[0]);
```

```
    }
```

```
}
```

a. f[0] = 0

b. f[0] = 0.0

c. compile time error

d. run time error

ans ---b

18. What will be the output of the program?

```
TreeSet map = new TreeSet();
```

```
map.add("one");
```

```

map.add("two");
map.add("three");
map.add("four");
map.add("one");
Iterator it = map.iterator();
while (it.hasNext() )
{
    System.out.print(it.next() + " " );
}

```

- a. one two three four
- b. four three two one
- c. four one three two
- d. one two three four one

Ans---c

19. What will be the output of the program?

```

import java.util.*;

class H
{
    public static void main (String[] args)
    {
        Object x = new Vector().elements();
        System.out.print((x instanceof Enumeration)+" ");
        System.out.print((x instanceof Iterator)+" ");
        System.out.print((x instanceof ListIterator));
    }
}

```

```
}
```

a.Prints: false,false,false

b.Prints: false,false,true

c.Prints: false,true,false

d.Prints: true,false,false

Ans-----d

20 .Which two statements are true about comparing two instances of the same class, given that the equals() and hashCode() methods have been properly overridden?

1. If the equals() method returns true, the hashCode() comparison == must return true.

2. If the equals() method returns false, the hashCode() comparison != must return true.

3. If the hashCode() comparison == returns true, the equals() method must return true.

4. If the hashCode() comparison == returns true, the equals() method might return true.

a.1 and 4 b.2 and 3

c.3 and 4 d.1 and 3

21.What will be the output of the program?

```
public class Test
```

```
{
```

```
private static int[] x;
```

```
public static void main(String[] args)
```

```
{
```

```
System.out.println(x[0]);
```

```
}
```

```
}
```

a.0

b.null

c.Compile Error

d.NullPointerException at runtime

Ans-----d

22. You need to store elements in a collection that guarantees that no duplicates are stored and all elements can be accessed in natural order. Which interface provides that capability?

a.java.util.Map b.java.util.Set

c.java.util.List d.java.util.Collection

Ans-----b

23. Which collection class allows you to associate its elements with key values, and allows you to retrieve objects in FIFO (first-in, first-out) sequence?

a.java.util.ArrayList b.java.util.LinkedHashMap

c.java.util.HashMap d.java.util.TreeMap

Ans-----b

24. Which is valid declaration of a float?

a.float f = 1F; b.float f = 1.0;

c.float f = "1"; d.float f = 1.0d;

Ans -----a

25.

```
/* Missing Statement ? */
```

```

public class foo
{
    public static void main(String[] args) throws Exception
    {
        java.io.PrintWriter out = new java.io.PrintWriter();
        new java.io.OutputStreamWriter(System.out, true);
        out.println("Hello");
    }
}

```

What line of code should replace the missing statement to make this program compile?

- a. No statement required.
- b. import java.io.*;
- c. include java.io.*;
- d. import java.io.PrintWriter;

Ans -----a

26. The Collection interface is the base interface for _____

- a. Set
- b. List
- c. ArrayList
- d. Linked List
- e. Map

ans---- a,b,e

27. The Map is the base interface for _____.

- a. TreeMap

- b. HashMap
- c. LinkedHashMap
- d. ArrayList
- e. LinkedList

ans ----a,b

28. Which of the following statements are true?

- a. The Collection interface is the root interface for manipulating a collection of objects.
- b. The Collection interface provides the basic operations for adding and removing elements in a collection.
- c. The AbstractCollection class is a convenience class that provides partial implementation for the Collection interface.
- d. Some of the methods in the Collection interface cannot be implemented in the concrete subclass. In this case, the method would throw `java.lang.UnsupportedOperationException`, a subclass of `RuntimeException`.
- e. All interfaces and classes in the Collections framework are declared using generic type in JDK 1.5.
- f. All the above

ans -----f

29. Which of the following data types does not implement the Collection interface?

- a. HashSet
- b. TreeSet
- c. ArrayList
- d. LinkedList

e. Map

ans ----e

30.If two objects o1 and o2 are equal, what are the values for o1.equals(o2) and o1.hashCode() == o2.hashCode()?

a. true true

b.true false

c.false true

d.false false

1. Art of organizing, controlling and revising the developers moduel is –SCM

2. Error and Exception is a subclass- Throwable

3. Valid xml discriptors-sql,formatter,core

4. JDBC connection what are the classes- java.sql,javax.sql

5. Importing a tag library file in jsp- <@taglib>

6. To correct a scenario Serilizable.

7. Scenario on Jsp include-<@include>

8. Interfarce can have only –public,static,final and not private,native

9. Declaration tag should be <%! %>

10. Parser without modifying the content is –SAX parser

11. XML can be transformed by – check it later

12. How call a servlet from a form- action=path of servlet/servletname

13. Int i=1;

If(i>0)

I=3;

Switch(i){

Case 1:

Case 2:

Case 0:

Break;

Case 3: s.op.(3);

Default: s.o.p(4)

Break;

Ans-3,4

14. 1.Jsp is text file with static and jsptage

2.Jsp is for presentation logic and servlet for BO- both are true

15. 1.Tld is a xml with description of entire library and tags

2. didn't remember – both are true

16. There should be atleast one element –ans:<!Element elemen(element-content+)>

17. Request object is implicit in- ans:HttpServletRequest

18. HttpSession implicit object in jsp- ans: session

19. where to declare a object to use in entire session-ans: session.setAttribute()

20. how to remove a attribute-ans: removeAttribute(String name)

21. In Expression language, how get a parameter name userId: ans-\${param.userId}

22. int i=10;

If(((i++)>12)&&(++i<15)){

s.o.p(i);

elses.o.p(i);

ans-11

23. Best practices for Collection- use addAll() for copying, use generic types

24. Return type of Iterator's next() method is – Object

25. Performing specific styles on set of page elements is done by-Div

26. scenario for updating customer phone,address- create a view
27. when updating view should reflect into original db automatically- trigger
28. What are filter attributes are-<init>,<filter-class>,<context>,<config>,<name>ans: don't know
29. how to call a stored procedure of oracle database by JDBC - ans: callable Statement
30. what are not attributes of meta tag- htt-equiv,value,name,content- ans: value
31. (Scenario) what exception raised when number divided by zero: ans: divide zero exception(none of above)
32. Need of alt attribute in img tag- ans: if image is not displayed alt tag value will get displayed
33. Varray(1,2,3,4,5,6,7)
34. which are synchronized- Hasttable,hashmap,arraylist,vector-ans: Hash table,vector
35. Pl/Sql –ans: plsqli block can be anonymous&named, plsqli block have declare&begin&exception
36. tools used for testing – ans: Junit,emma
37. Rais_application_error- ans: complies correctly
38. Can we use select statement with max, min in updatebefore trigger- ans: trigger fails.
39. <%!java.util.Date date=new DATE() %>
<%=date.getHours()%>: <%=date.getMinutes()%>:<%=date.getSeconds()%>
Ans: time in hh:mm:ss format
40. how use variable all servlets&jsp pages- ans: getServletContext().setAttribute(),
request.getSession().setAttribute()
41. In xml how to specify the attribute order- ans: <xs:sequence>
42. In outer joins result will include all rows of first table and not second tables rows which fails condition- ans: true
43. Join performce better than sub-query- ans: true;
44. HttpServletRequest is sub interface of- ServletRequest
46. super class a protected method and child class overriding the method, what should be the access

specifier- ans: protected or default.

47. Valid package name-ans: com.org.examle, home_test, pack123

```
27- <p:data>
    <%=new Date()%>
    <p:data/>
```

What is the body of the custom tag?

a) Scriptless b) expression language c) JSP

34-. Byte b1=1, Byte b2=2, System.out.println(b1+b2)?

Ans: 3

35. package ke bare me kuchh statement honge aur tumhe 2 ya 3 select krne ha.

Ans: package is logical collection of cls

36. if(" string ".trim.equals(string)) kuch bhi rhega to to ouput else condition wala hoga

37. bufferwriter can be used to read filewriter? ans-true

38. for data security v use with method of servlet? ans- post

39. . how to implement method of a abstract cls? ans- method should be defined with public or same access modifier as in abstract cls.

39. return type next() api of iterator? ans-object.

40. join, notify, notifyall should use? ans-unsynchronized method of thread cls.

41. how to destroy session? ans- session.invalidate().

42. class name should be? ans- simple n descriptive.

43. when translation n compilation method in jsp in called? ans- during deployment.

44. filter object consist of? ans- filter class and description name

45. study the syntax of complex type element in xml. (In 1st ppt of xml)

46. in collection, synchronized cls r? ans- vector n hashtable.

47. there r three element in list, we set an element at position 1 then how to access 3rd element of list?

Ans: list(position of new element+1)

48. how to create object in xml? ans- sax

49. for gd practice v use which ? ans- cpd, pmd.

51. a web page hai jisme 1000 user access kar rhe hai to kitne servlet object banenge? ans- 1

52. ek table me 2000 columns hai, kuchh user ise access karke modify krna chahte hai par sabhi ko access nhi hoga? ans- create index.

53. ek web application bnaya to iska deployment descriptor ka nam kya hoga? ans- web.xml

54. XSL ka full form. Ans: Extensible style sheet language.

55. jsp me servlet context ke equivalent hai? ans-application.

56. wht is generic n servlet? ans- servlet is interface n generic is cls which implements servlet.

57. how to include a file in jsp? ans-import.

59. in jdbc, wht v have to enter data for output? ans-preparedStatement.

60. wht is use of filter? ans- security n chking request n response.

61. collection ke bare me optio select krna tha? ans- sabhi sahi the, option yad nhi hai.

- aur ques programming tha inheritance, thread aur exception handing se.

- trigger, plsql procedure ka syntax dekh lena

62. how to get element of tag in html page through a java script.

Ans: document.getElementsByTagName("p")

63. public class practice {

```

public static void main(String[] args) {
    try{
        System.out.println("A");
        System.exit();
    } catch (Exception e) {
    }
    System.out.println("C");
}
}

```

Ans: A

```

63. public class practice {
    public static void main(String[] args) {
        char c='a';
        char cl=c+27; //error
        System.out.println(cl);
    }
}

```

Ans: output- compile time error.

```

64. public class practice {
    public void show() {
        System.out.println("super");
    }
}
class child extends practice{
    public void show() {
        System.out.println("child");
    }
}
public static void main(String[] args){
    super.show(); //error
}
}

```

Ans: compilation error.

65. A field in interface is by default->public,static,final

66) drop table will keep the table in recycle bin and can be recovered --true

67) Purge command will permanently delete the table—true

68. ROW LEVEL trigger-for each statement

69. image alt attribute —displays text if image is not there

70. Exception and error is super class of Throwable

71. send message to error page- request

72. tools for testing the code- PMD, CPD, ANT

73.option: doFilter()

74. . If there are more than one text box with the same name in a form, then how will you retrieve the first value of the text box? (choose all possible options)

- a. request.getParameter("textBoxName");
- b. request.getParameterValues("textBoxName")[0];
- c. request.getHeader("textBoxName");
- d. request.getAttribute("textBoxName");

75.

Which HTTP methods are used to show the client what the server is receiving?

- a. GET
- b. PUT
- c. TRACE

d. OPTIONS

76. Assume a class named Employee which has a property called "empId" which is of type int. "employee" is an attribute instance of Employee. Which of the following are legal ways of setting the empId field to Also assume that there is a parameter called "empId" with the value 10 available to the jsp as a request parameter?

- a. <jsp:setProperty name="employee" property="empId"/>
- b. <jsp:setProperty property="empId" value="10"/>
- c. <jsp:setProperty name="employee" property="*" />
- d. <jsp:setProperty name="employee" property="empId" param="empId"/>

77. How will you retrieve the first value of request parameter "fname"? (Choose all options that apply)

- a. \${param.fname}
- b. \${requestParams.fname}
- c. \${requestScope.fname}
- d. \${paramValues.fname[0]}

78. POST method is considered to be idempotent method (state true/false)

- c. True
- d. False

79. . In Expression Language \${8 / 0} – displays Infinity (state true/false)

- a. True
- b. False

80. <pref:tag1>

<%= result %>

</pref:tag1>

80. Which of the following are valid for the <body-content> tag of tag1?

- a. JSP
- b. empty
- c. scriptless
- d. tag dependant

81. Which of the following EL implicit objects is not a Map?

- a. requestScope
- b. initParam
- c. headerValues
- d. pageContext

82. . How will you access a servlet context initialization parameter named "company-name"?

- a. \${init.company-name}
- b. \${init['company-name']}
- c. \${initParam["company-name"]}
- d. \${contextParam.company-name}

83. Which of the following are JSP implicit objects?

- a. pageContext
- b. application
- c. requestScope
- d. exception

84. Which of the following are valid?

- a. <jsp:include page="Header.jsp"/>
- b. <jsp:include file="Header.jsp"/>
- c. <%@include file="Header.jsp"%>
- d. <%@include page="Header.jsp"%>

85. Can we use try block inside catch block.-• yes

86. .DTD-Document Type Def.

87. content read inside the first paragraph tag

`Var content=document.getElementsByTagName("p")[0].innerText`

88.what is return type of getWriter()

`Printwriter out=response.getWriter();`

Out

89. Default method-get

90.Which carries bulk data –Post method

91. Why versioning is used in s/w development ??

Options-1.WinZip 2.Branching n merging 3.Formatting 4.Recovery of data

92. When Scriptlet executes then every time call goes to JSP(True/False)?true

93. Select (3*2) from dual

Ans-6

94. Method to override comparable interface

a.compareTo

b.comarable

c.comapre

d.compare with

95. Where do you find config class.?

Ans-javax.servlet.servletConfig

96.Are there any datatypes in java script?

Ans-No..(only var)

97.How do you store objet to the disk storage?

Ans-Using serialization

98.What will be the output

Class Abc

```
{
Psvm()
{
int i=10;
if((i++<12) && (++i<15))
{
Sysout(i);
}
Else
{
Sysout(i)
}
}
}
```

Ans-12;

99.Select checked exceptions

Ans-1.Interepted Exception

2.ClassNotFoundException

100. send message to error page- request

101.reading the object from disk (ObjectInputStream)• deserialization

102; writing the object to disk (ObjectOutputStream) • serialization

103. GOOGLBOT – page should not be archived

104. static variables can be **serialized** and transient variables **can not be serialized** • true

105.) bank question - locking system ans: synchronization

106. coding standard checking using • pmd nd cpd

107. Can send large amount of information via POST method • yes

108) In MVC presentation logic is done in • view

109) change RAISE_APPLICATION_ERROR to RAISE_APPLICATIONS_ERROR

110. <%int b=6;%>

<%=a*b;%>

Ans: Error at line 3

111) Varray question

VArray ar={1,2,3,4,5,6}

While (x<v.last) loop out.print()

Ans: compilation at line 3

112) x=1;

If (x>0)

X=3;switch(x){case1 ...}

Ans:3,4

113. to import custom tags **Taglib directive** is used

114>Protected abstract void method_name ()----->can be implemented in sub class with public or protected mode

115)

<%! Int a=6; %>

<% Int b=6; %>

<%=a*b; %>

Ans:--**error in 3rd line because of ;**

116)

a)static variable can be serialized

b)transient variable can't be serialized.

Which statements are true:

True,true.

117)Atm machine scenario->**thread synchronization**

118)**in threads synchronized methods are always better than synchronized code**

119) Which of the following attributes of page directive are invalid?

a. isELIgnored

b. session

c. language

d. isScriptingEnabled

120.what can be used to include one or more html file/page • frameset

121.garbage collection is demon thread • true

122. Which of the following are JSP implicit objects?

a. pageContext

b. application

c. requestScope

d. exception

123.multiple view • view delegate

124.decouple • business delegate,business application

Questions

1.advantage of branching

2.cursor syntax

Question	Option 1	Option 2	Option 3	Option 4	Correct
Iterator is having previous() method.State True or False.	TRUE	FALSE			2
Which of the Following attributes of page directive are invalid?	isScriptingEnabled	isELIgnore	language	session	1
What will be the output of following code? <pre> class Super2 { public void display() { System.out.println("super class display method"); } public void exe() { System.out.println("super class exe method"); display(); public void display() { System.out.println("sub class display method"); } } public static void main(String [] args) { InheritMethod o= new InheritMethod(); o.exe(); } } </pre>	super class exe method super class display method	super class exe method sub class display method	Compilation error	None	4
Please select the correct statement with respect to including Javascript in HTML pages.	JavaScript can be written inside the header	JavaScript can be written as an external file and imported to the page	all of the listed options	JavaScript can be written inside the page body	3

What is the data type of m in the following code? import java.util.*; public class set1 { public static void main (String [] args) { Set s= new HashSet(); s.add(20); s.add("abc"); for(____m.s) System.out.println(m); } }	String type	int Type	set1 type	Object type	4
Tags for using JavaBeans with JSP?	<jsp:useBean><jsp:setProperty> and <jsp:getProperty>	<jsp:useBean> and<jsp:include>	<jsp:useBean> and<jsp:plugin>	<jsp:setProperty> <jsp:getProperty> and <jsp:forward>	1
Which method can be used to submit form data that should not be exposed for viewing?	POST	GET	REQUEST	PUT	1
How do you separate ASP.NET code from the user interface?	Using Custom Controls	Using User Controls	Using Code-Behind Forms	Using ASP.NET web pages	3
What will be the output for following code? public class Exe3 { public static void main (String [] args) { try { int i=10; int j=1/0; return; }	welcome	error	None	compilation error	4
Which of the following assemblies can be stored in Global Assembly Cache?	Friend Assemblies	Private Assemblies	Public Assemblies	Shared Assemblies	4

Manoj has created the Hello servlet that displaya Welcome in the browser window. The code of the servlet is: package myworld; import java.io.IOException; import java.io.PrintWriter; import javax.servlet.ServletConfig; import javax.servlet.ServletException; import javax.servlet.http.HttpServlet; import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse; public class hello extends HttpServlet { protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException { PrintWriter out=response.getWriter(); out.println("<html>"); out.println("<head>"); out.println("<title> My Servlet</title>"); out.println("</head>"); out.println("<body>");	<servlet><ser vlet- name>mywo rld hello</servle t-name> <servlet- class>hello</ servlet-class> </servlet><se rvlet- mapping><se rvlet- name>hello< /servlet- name> <url- pattern>/hell o</url- pattern></se rvlet- mapping>	<servlet><se rvlet- name>hell o</servlet- name> <servlet- class>my world.hell o</servlet- class> </servlet> <servlet- mapping> <se rvlet- name>hello< /servlet- name> <url- pattern>/hell o</url- pattern> </se rvlet- mapping>	<servlet><se rvlet- name>hello</ser vlet- name> <servlet- class>hello</serv let-class> </servlet><servl et- mapping><servle t- name>hello</ser vlet-name> <url- pattern>/hello</ url- pattern></servle t-mapping>	<servlet><se rvlet- name>hello</ser vlet- name> <servlet- class>mywor ld.hello</ser vlet-class> </servlet><s ervlet- mapping><s ervlet- name>hello< /servlet- name> <url- pattern>/hel lo</url- pattern></se rvlet- mapping>	4
Which two statements about packages are true?	You achieve information hiding by making package constructs private.	A package is loaded into memory each time it is invoked	Packages can be nested	The contents of packages can be shared by many applications	1,4
Which of the following statements is incorrect about a delegate?	A single delegate can invoke more than one method	Delegates can be shared	Delegates are type-safe wrappers for function pointers	Delegate is a value type	4

Identify the code snippet declare EmpNAME; begin SELECT ENAME INTO EmpNAME FROM Emp WHERE EmpNo=101172; dbms_output.put_line(EmpName); end; What will be the output of the above code?	Error	ENAME of EmpNO 101172			2
The result of 10.987+"30.765" is _____.	10.9873.765	10.98730. 765	10.987		2
What does the LOCAL argument in the DECLARE CURSOR statement denote?	The LOCAL cursor will be implicitly deallocated when the batch, stored procedure or trigger terminates	Specifies that cursor can be available only in the batch, stored procedure or trigger in which the cursor was created	The LOCAL cursor will have to be explicitly deallocated when the batch, stored procedure or trigger terminates	Specifies that cursor can be available to all local resources	1,2
Select two runtime exceptions.	NullPointerEx ception	IOExcepti on	ArrayIndexOutOf BoundsException	SQLException	1,3
Culture & UICulture properties of a page class can have different culture values. State True or False.	TRUE	FALSE			2

<p>Which of the following statements is correct about the C#.NET program given below if a value "6" is input to it? using System.</p> <pre> namespace IndiabixConsoleApplication { class MYProgram { static void Main(string [] args) { int index; int val = 44; int [] a= new int[5]; try { Console.Write("Enter a number"); index=Convert.ToInt32(Console.ReadLine()); a[index]=val; } catch(FormatException e) </pre>	It will output: Bad Format	It will output: Bad Format Remaining Program	It will ouput: Index out of bounds Remaining Program	It will output: Remaining Program	3
<p>Consider you are developing shopping cart application you have to store details of items purchased by the each customer in intermediate memory before storing purchase details in actual database permanently note that number of different items purchased by customer is not definite it may vary.n How do you implement given requirement using java considering best performance of the application?</p>	Implement using Arrays	None of the listed options	Implement using File APIs	Implement using Collection APIs	4
<p>Which of the following statements are correct?</p>	All objects created from a class will occupy equal number of bytes in memory	A class can contain only instance data and instance member function	A class is a blueprint or a template according to which objects are created	Instance members of a class can be accessed only through an object of that class	1,2,4

Select correct naming convention used during class declaration.	Class name should be nouns	Class name can be java vaild keyword	Should be simple and descriptive	Class name starts with lower case	1,3
<pref.tag1> <%=result %> </pref.tag1> Which of the following are valid for the <body-content> tag of tag1?	empty	scriptless	tag dependant	JSP	2
interface B { public void bM1(); public void bM2(); } abstract class A implements B { public abstract void aM1(); public abstract void aM2(); public void bM1(){}; } public class Demo extends A { } In above scenerio class Demo must override which methods?	public void aM1(){} 	All the listed options	public void bM2(){} 	public void aM2(){} 	2
Which of the following statements are correct?	Argument that uses param keyword must be the last argument of variable argument list of a method	Pass by reference eliminates the overhead of copying large data	An argument passed to the ref parameter need not be initialized	Variable passed as out arguments need to be initialized prior to being passes	1,2
Which of the following Listener is used to track number of active sessions or users?	HttpSessionBindingListener	ServletRequestListener	HttpSessionListener	ServletRequestListener	3

Which statements are true about hash Tables?	The key can be the null reference	The value cannot be the null reference	The key cannot be the null reference	The value can be the null reference	2,3
gen has written a JSP Code in which he is calling the getMessage() function which is returning a value "hello world". You have to identify which code should he use to get this?	<pre><html> <%! String message="hello world", String getMessage() { return message;} %> Message for you:<%! getMessage() %> </html></pre>	<pre><html> <%= String message= "hello world", String getMessage() String getMessa ge(){ return message;} %> Message for you:<%=g etMessag e() %> </html></pre>	<pre><html> <%String message="hello world", String getMessage(){ return message;} %> Message for you:<%=getMess age() %> </html></pre>	<pre><html> <%! String message="hello world", String getMessage(){ return message;} %> Message for you:<%=get Message() %> </html></pre>	4
Views are a powerful mechanism for customizing the way your data is presented to users. They can be used to enhance security and streamline complex table relationships. Views that create static results can still be modified using _____ which allow you to define how the underlying tables are modified ensuring your data integrity.	Functions	Triggers	Stored Procedure	Cursors	2
Which object of JSP holds reference to javax.servlet.http.HttpSession object?	session	response	request	PageContext	1

Consider you are maintaining ABC company database. ABC company database tables are accessed by 1000 users initially when it was designed from last two years there was tremendous increase in number records count also number of users who are accessing the database tables to fetch results. Users of ABC company database are reporting problem that query processing is taking more time when they execute query against the database tables. What will the right solution you will suggest in such scenarios in order to increase database query performance?	Create index	Create function	Create stored procedure	Create trigger	3
Which statements are true about large varchar?	A sql_variant cannot contain a large varchar data type	Large varchar column can be specified as a key column in an index	Large varchar columns are the only columns that can be used as partitioning key columns	Large varchar columns cannot be used as partitioning key columns	1,4
What will be the output for following code? <pre> public class CompareStrings{ public static void main(String [] args){ if(" string ".trim()=="string") System.out.println("both strings are equal"); else System.out.println("both strings are not equal"); } } </pre>	both strings are not equal	compilation error	String operator cannot compare using == operator	both strings are equal	1

<pre> public class Threads { public static void main(String[]args) { new Threads().go(); } public void go() { Runnable r = new Runnable() { public void run() { System.out.print("Run"); } }; Thread t= new Thread(r); t.start(); t.start(); } } </pre>	An exception is thrown at runtime	The code executes normally and prints "Run"	Compilation fails	The code executes normally but nothing is printed	1
<p>Consider the following code with line number given below:</p> <p>Line 4: <%! int a=6; %></p> <p>Line 5: <%! int b=8; %></p> <p>Line 6: Reult is <%!=a*b; %></p> <p>Which of the following are true with respect to the above code segment?</p>	It will complie successfully and print 48	Line 6 is invalid	Line 4 is invalid	Line 5 is invalid	2
JAXP stands for:	Java API for XML Processing	Java API for eXtensible Processing	None	Java API for eXtensive Processing	1

Ronald has observed that his Web application has some HTML tags or features that all the Web browsers do not support. If the client's browser does not support the application may or may not run or may generate undesired output in the Web Browser of the client. Therefore Ronald wants to identify the type of browser and other specific information about the client that sends the request to the Web application before invoking the servlet. Which of the following options will help Ronald provide this functionality?	By modifying the web deployment descriptor	By programming filters	By creating security constraints	By implementing the listeners	2
During translation the scriptlet code is copied inside:	Scriptlet code gets no space in the generated scriptlet	The service method of the generated servlet	The init() method of the generated servlet	The doGet() method of the generated servlet	2
Which of the following options can be used by the controller to destroy a session of a web application immediately?	By using the setMaxInactiveInterval() method period to 60 seconds	By using the destroy() method	By using the invalidate() method	By setting the session-timeout parameter in the web.xml file to 1 minute	3
Which of the following statements are true? Statement A: Arrays have a fixed upper bound, but nested tables are unbounded. Statement B: Second, arrays must have consecutive subscripts and nested tables are dense, but they can be sparse(have non-consecutive subscripts).	Both A and B are false	Both A and B are true	A is true and B is false	A is false and B is true	2
Code to get the value of "address" request parameter is:	<code>\${param.address}</code>	<code>\${request.address}</code>	<code>\${values.address}</code>		1

What will be the output for following code? <pre> public class VariableDec1 { public static void main(String[]args) { int i=32; char c=65; char a=c+i; System.out.println(a); } </pre>	None	a	Compilation Error	97	3
Consider Vijay is developing a web application. Which method he can use to get a collection of elements of same type(for example paragraph tags) in JAVA Script?	None	getElementById()	getElementByName()	getElementByTagName()	4
What will be the output for following code? <pre> public MethodOverloading { int m=10,n; public void div(int a) throws Exception { n=m/a; System.out.println(n); } public void div(int a,int b) { n=a/b; } public static void main(String[]args) throws Exception { MethodOverloading o= new MethodOverloading(); o.div(0); o.div(10,2); } } </pre>	It will print ArithmeticException and prints 5	None	It will print 5	It will give ArithmeticException	4
How does SOAP enable creation & usage of Web services?	Provides a robust mechanism to Data & Structure over the web	Uses proprietary means of describing data	Enables messaging over HTTP	Uses standard means of describing data	1,3,4

What does the following code denote? var orderedCustomers= from customer in Customers where customer.Grade == "Premium" orderby customer.Name select customer.Name; select one or more:	The following code is an example of LINQ query	The following code shows the syntax for Filtering data	The following code is an example of Database query	The following code shows the syntax for Ordering data	1,2,4
Which JSTL code snippet can be used to perform URL rewriting? Select one:	<a href='<c:link value="cogni zant.jsp"/>'/>	<a href='<c:u rl value="co gnizant.jsp "/>'/>	<a href='<c:link url="cognizant.js p"/>'/>		2
Consider you are developing an ATM application for ABC Bank using java application. Several account holders of ABC Bank have opted for add-on cards. There is a chance that two users may access the same account at same time and do transaction simultaneously knowingly or unknowingly from different ATM machine from same or different bank branches. As developer you have to ensure that when one user login to account until he finishes his transaction account should be locked to other users who are trying access the same account. How do you implement given requirement programmatically using java?	Using object serialization	None	Using object deserialization	Using Thread Synchronizat ion	4
InputStream is the class used for stream of characters State True or False.	TRUE	FALSE			2

<p>What does the following code denote?</p> <pre> public class Contact { public string Name { get,set;} public string Email { get,set;} public string Address { get,set;} } class Customer:Contact { public string Gender { get,set;} public decimal income { get,set;} } </pre>	Inheritance	Overriding	Encapsulation	Overloading	1
What are the Tools & plugs-ins commonly used in testing java application code?	ANT	EMMA	JUnit		2,3
What are the benefits of using a stored procedure?	Efficient reuse of code	Reduced network traffic	Efficient compilation	Precompiled execution, hence faster	1,2,4
Given that URL-rewriting must be used for session management, identify the query string attribute used when URL-rewriting.	jsessionId	containerid	sessionId	servletid	1
Mention some of the important functions of Servlet Filter.	Modifying the request or response	allowing all the users	None of the listed options	Security Checks	1,4
consider you are creating a cursor. Choose the correct sequence of steps to work with cursors?	Declare,Fetch , Open Fetch	Open,Fetch,Close	Declare,Open,Fetch,Close	Open, Declare,Fetch,Close	3
What is the use of ServletConfig interface?	A servlet configuration object used by a servlet container to pass information to a servlet during initialization	All of the listed options	The ServletConfig object is contained within the ServletContext object	Defines an object to provide client request information to a servlet	2

<pre><?xml version="1.0" encoding="UTF-8"?> <taglibxmlns="http://java.sun.com/xml/ns/j2ee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://java.sun.com/xml/ns/j2eeweb- jsptaglibrary_2_0 xsd" version="2.0"> <tlib-version>2.0</tlib-version> <short- name>SimpleTagForLearning</short- name></pre>	<pre><%@ taglib prefix="pre" uri="testuri" %><html><h ead> <title> Demo </title></hea d><helloworld attrib="john" ></html></pre>	<pre><%@ taglib prefix="pre" uri="testuri"%>< html><head> <title> Demo </title></head>< helloworld "attrib"=john/>< /html></pre>	<pre><%@ taglib prefix="pre" uri="testuri" %><html><h ead> <title> Demo </title></he ad><pre:hell oworld/></h tml></pre>	2	
Which complex type specifies that the elements should always be in the order specified?	<pre><xs:complexType name="CountryInfo"><xs:choice><xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:choice></xs:complexType></pre>	<pre><xs:complexType name="CountryInfo"> <xs:all><xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/> </xs:all></xs:complexType></pre>	None of the listed options	<pre><xs:complexType name="CountryInfo"><xs:sequence><xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:sequence></xs:complexType></pre>	4

Which statements about JDBC are true?	JDBC is an API to access relational databases, spreadsheets and flat files	JDBC is an API to bridge the object-relational mismatch between OO programs and relational databases	JDBC has 5 types of Drivers	JDBC stands for Java DataBase Connectivity	1,2,4
What is the significance of the @ Register directive in a ASP.NET web page?	The directive is used to register a web page	The directive is used to register a user control	The directive is used to register a web site	The directive is used to register an application	2
As per Java Class names should be nouns , in mixed case with first letter of each internal word capitalized. Try to keep your class names simple and descriptive. State True or false.	TRUE	FALSE			1
Which of the following keywords ensures that a method cannot be overridden?	final	protected	abstract	static	1
<p>Given a Filter class definition with this method:</p> <pre> 21. public void doFilter(ServletRequest request, 22. Servletresponse response, 23. filterChain chain) 24. throws ServletException, IOException { 25. // insert code here 26. } </pre> <p>Which code line should you insert at line 25 to property invoke the next filter in the chain, or the target servlet if there are no more filters?</p>	request.doFilter(request,response);	chain.doFilter(request,response);	request.forward(request,response);	chain.forward(request,response);	2

Which of the following statements are correct?	Pass by reference eliminates the overhead of copying large data	An argument passed to a ref parameter need not be initialized first	Variable passed as out arguments need to be initialized prior to being passed	Argument that uses params keyword must be the last argument of variable argument list of a method	1,4
<pre>public class MethodSigExample { public int test(String s, int i) { int x=i+s.length(); return x; } }</pre> <p>During refactoring method signature can be changed using the option: Select one:</p>	Refactor> move method	Refactor> Extract method	Refactor> Change Method Signature	Refactor> move	3
<p>What will be the output of the following Java Script code whrn the button is clicked?</p> <pre><body> <script type="text/javascript"> function displayMessage(){ document.write("Displaying message by using javaScript"); } </script> <button type="button" onclick="DISPLAYMESSAGE()"> Display Message</button> </body></pre> <p>Select one:</p>	It will print the message "Displaying message by using javaScript"	It will display some error message on browser	It will not print the message	None	3
What is the syntax of Expression Language in a JSP page?	<code>\${expr}</code>	<code>\${"expr"}</code>	<code>\$(expr]</code>	<code>#{expr}</code>	1

Which statements are applicable to Web services?	The information is passed back & forth through HTTP	The data transfer is XML based	The communication protocol most often used for Web Services is SOAP	The information is passed back & forth through TCP/IP	1,2,3,4
Which two statements are true? Select one or more:	Deadlocked threads release once their sleep() method's sleep duration has expired	If a piece of code is capable of deadlocking, you cannot eliminate the possibility of deadlocking by inserting invocations of Thread.yield();	The JVM implementation guarantees that multiple threads cannot enter into a deadlocked state	It is possible for more than two threads to deadlock at once	2,4
When one method is overridden in sub class the access specifier of the method in sub class should be equal as method in super class. State true or false.	TRUE	FALSE			2
Which of the following options represents the presentation logic to provide the data of the model in the MVC design pattern?	View	Connector	Controller	Model	1
Which parser reads small chunk of document at a time, parses it, generate an events and then reads another chunk of document?	DOM	None	XML	SAX	4
XYZ Company database tables are accessed by several users but few users want to do positional row updates or deletes operation on databases tables based on business requirement. What will the right solution you will implement in such scenario?	Use Cursors	Use database Trigger	Use Views	Use database Indexes	1

You are developing dynamic web application using JSP. Which attribute of page directive specifies the list of classes imported in the JSP file?	extends	import	session	language	2
What are the benefits of using a stored procedure?	Efficient compilation	Reduced network traffic	Precompiled execution, hence faster	Efficient reuse of code	2,3,4
Request implicit object is which of the following type?	ServletHttpRequest	HttpServletRequest	ServletRequest	HttpRequest	2
What will be the output of following code? try { System.out.println("Executing try"); } System.out.println("after try"); catch(Exception ex) { System.out.println("Executing catch"); }	Executing try Runtime Exception	Executing try after try Executing catch	Runtime Exception	Compile Time Exception	4
You being a software developer needs to develop a web application for your organization. You decided to use servlets to create the web application. While you are creating the servlet you feel the need to write the code for the initialization of the servlet. This is needed to initialize the servlet with the required data after the servlet instance has been created. How will you perform this task?	By overriding the service method in the servlet class	By overriding the init method in the servlet class	By overriding the doGet method in the servlet class	By overriding the destroy method in the servlet class	2
What is the use of attributes in HTML tags?	Attribute is a type of tag	Which represents the content to be displayed in the page	None	Provides additional behaviour to the tag	4

Whenever a request goes from the client to the server some additional information other than the request is also passed to the server. This additional information is in the form of a _____.	footer	header	Session ID	Application ID	3
Select the advantages of using coding conventions in java application development.	all of the listed options	Improves easy maintenance	improves easy understanding	Improves Readability of the software	1
<p>which of the following statements are true?</p> <p>Statement A: index by table is also known as associative arrays. It lets you to look up elements using arbitrary numbers and strings for subscript values.</p> <p>Statement B: Nested tables hold an arbitrary number of elements. they use sequential numbers as subscripts.</p>	A is true, B is false	Both are true	Both are false	A is false, B is true	2
XYZ company database has SALES table which captures all department sales information. You have been asked to create department wise summarized total sales report from SALES table. Which of the following correct option will fetch you meaning full result?	None	Use Aggregate function along with WHERE clause in query to retrieve result	Use Aggregate function along with GROUP BY clause in query to retrieve result	Use Aggregate function along with ORDER BY clause in query to retrieve result	3
Which statements are applicable to Web services?	The information is passed back & forth through HTTP	The data transfer is XML based	The communication protocol most often used for Web Services is SOAP	The information is passed back & forth through TCP/IP	1,2,3,4
A filter configuration object used by a servlet container to pass information to a filter during initialization. State true or false.	TRUE	FALSE			1

Which attribute of the page directive indicates that the JSP engine can handle more than one request at a time when its value is set to true?	info	isThreadSafe	extends	autoflush	2
What will be the output for following code? <pre> public class Compare { public static void main(String[]args) { String s= new String("abc"); String s1= new String("abc"); System.out.println(s.compareTo(s1)); } } </pre>	Zero("0")	FALSE	None	TRUE	1
What are the benefits of Logging?	None	Debug applications issues easily	Detect compiler errors easily	Trouble Shoot performance problems	2,3,4
Consider you are developing a JDBC application, where you have to retrieve Employee table schema information like table columns name, columns field length and data type etc. Which API you will use to retrieve table schema information?	ResultSetMetaData	DataSource	Statement	ResultSet	1
Which of the following is applicable to Servlet Containers?	These are responsible for managing the lifecycle of servlets, mapping a URL to a particular servlet and ensuring that the URL requester has got the correct access right	These are specialized web servers, which support servlet execution	These are also referred to as web containers or web engines	All of the listed options	4

Select the benefits of versioning the software in java application development.	Formatting	Branching and merging	Synchronization	Backup and Restore	2,3,4
Which statement creates DocumentBuilderFactory instance?	DocumentBuilderFactory f=BuilderFactory.newInstance();	None	DocumentBuilderFactory f=new DocumentBuilderFactory();	DocumentBuilderFactory f=DocumentBuilderFactory.newInstance();	4
What will be the output for following code? import java.util.*; public class StringTokens { public static void main(String[]args) { String s="India is a\n developing country"; StringTokenizer o= new StringTokenizer(s); System.out.println(o.countTokens()); } }	6	5	4	None	2
What will be the output of the following code snippet? <% page language="java"%> <html> <head></head> <body> <%java.util.Date now= new java.util.Date();%> <H1><%=now.getHours()%>:<%=now.getMinutes()%>:<%=now.getSeconds()%></H1> </body> </html>	It will display the current time as hh:mm:ss	It will display the date and time	It will display the date as mm:dd;yy	It will display the time as hh:mm:ss	1
Which of the following is the deployment descriptor file of a web application? Assuming that the name of the Web application is BankApp.	BankApp.xml	WebApp.xml	deployment.xml	web.xml	4
Choose a valid package name in JAVA.	123pack	outerpack_innerpack	com.sun.eng	pack123	2,3,4

What does the following listing denote? <configuration> <system.web> <pages theme="Website"/> </system.web> </configuration>	Registering a skin in web.config	Registering a theme in web.config	Registering a MasterPage in web.config	Registering a StyleSheetTheme in web.config	2
In Java script, for accessing first paragraph tag in the document which of the statement is used?	document.getElementsByTagName("p")[0]	document.getElementsByTagName("p")	document.getElementsByTagName("p")[0]	None	1
How to divide the page into two rows when we are using frameset?	By using colspan	By using rows=50%,50%	By using rowspan	By using cols=50%,50%	2
What is the correct syntax of the declaration which defines the XML version?	<?xml version="1.0" />	<?xml version="1.0"?>	None	<xml version="1.0" />	2
Identify the code snippet DECLARE var_num1 number:=50; var_num2 number; BEGIN var_num2 :=200; DECLARE var_mult number; var_num1 number:=100; --LINE 1 BEGIN var_mult :=var_num1*var_num2; END; dbms_output.put_line(var_num1); END; What will be the output of the above code assume serveroutput is on	Compilation Fails	Compilation Fails due to error in line 1	Runs without any output	Compiles, executes and prints 50	4
Try can be followed with either catch or finally.State true or false.	TRUE	FALSE			1

<p>You are developing a trigger which should ensure that no negative value is inserted in employee table's Age column. you have created a trigger as follows</p> <pre>create or replace trigger Age Verify before insert on employee for each row when(new.EmpAge<0) begin RAISE_APPLICATION_ERROR(-20000,'no negative age followed'); end; /</pre> <p>Identify error if any in the above trigger and give the solution.</p>	<p>The order of Arguments passed to RAISE_APPLICATION_ERROR is wrong</p>	<p>Replacing RAISE_APPLICATION_ERROR(-20000,'no negative age allowed'); to RAISE_APPLICATION_ERROR(-20000,'no negative age allowed'); will give the desired output</p>	<p>Replacing RAISE_APPLICATION_ERROR(-20000,'no negative age allowed'); to RAISE_APPLICATION_ERROR(-20000,'no negative age allowed'); will give the desired output</p>	<p>No problem in the trigger. It gives the desired result</p>	4
<p>Which of the following code line will destroy a session?</p>	<p>session.isAlive=false;</p>	<p>session.invalidate();</p>	<p>session.isNew(false);</p>	<p>session.removeSession();</p>	2
<p>Which of the following are true about protected access specifier?</p>	<p>All members of abstract class are by default protected</p>	<p>Protected is default access modifier of a child class</p>	<p>A class can be declared as protected</p>	<p>If one class is having protected method then the method is available for subclass which is present in another package</p>	1
<p>Which of the following is not an attribute of meta tag?</p>	<p>content</p>	<p>name</p>	<p>http-equiv</p>	<p>value</p>	4

In Thread implementation making method synchronized is always better in order to increase application performance rather than using synchronize block to synchronize certain block of statements written in java inside the method. State true or false.	TRUE	FALSE			1
What will be the output for following code? <pre> public class Variabledec { public static void main(String[]args){ boolean x=true; int a; if(x) a=x?2:1; else a=x?3:4; System.out.println(a); } } </pre>	2	4	3	1	1
Consider the following statements; Statement A: The PreparedStatement object enables you to execute parameterized queries. Statement B: The SQL query can use the placeholders which are replaced by the INPUT parameters at runtime. Which of the following option is true with respect to the above statements?	A is false and B is true	Both are true	Both are false	Both are false	2
Consider Vijay is developing web page using HTML. Which method he can use for sending large amount of data on submitting the form? I. POST II. GET	I	Both I & II	II	None	1

How can you force garbage collection of an object? 1. Garbage collection cannot be forced 2. Call System.gc() 3. Call Runtime.gc() 4. Set all references to the object to new values(null, for example).	1	4	3	2	1
How to drop all tables from recycle bin?	DROP DBA_RECYCLEBIN	Cannot drop tables from Recycle Bin	PURGE RECYCLEBIN	DROP ALL_TABLE_ RECYCLEBIN	3
Which of the following variable represents the uncaught throwable object that resulted from a call to the error page?	application	exception	config	request	2
Under which two circumstances do you design database triggers?	To replicate built-in constraints in the Oracle server such as primary key and foreign key	To guarantee that when a specific operation is performed, related actions are performed	To duplicate the functionality of other triggers	For centralized, global operations that should be fired for the triggering statement, regardless of which user or application issues the statement	2,4
<pre>public class MethodSigExample { public int test(String s, int i) { int x= i+s.length(); return x; } }</pre> During refactoring method signature can be changed using the option:	Refactor> move	Refactor> move method	Refactor> Change Method Signature	Refactor> Extract method	3
When Comparable interface is used which method should be overridden?	compareTo	compare	compareTo	comparator	3

<p>SELECT e.EMPLOYEE_ID,e.LAST_NAME,e.DEPARTMENT_ID,d.DEPARTMENT_NAME FROM EMP e, DEPARTMENT d WHERE e.DEPARTMENT_ID=d.DEPARTMENT_ID;</p> <p>In the statement, which capabilities of a SELECT statement are performed?</p>	Selection,Intersection, Join	Selection,Projection, Join	Intersection,Projection, Join	Difference,Projection Join	2
<p>What will be the output for following code?</p> <pre>public class While { static int i; public static void main(String[]args){ System.out.println(i); while(i<=5){ i++; } System.out.println(i); } }</pre>	6,0	0,5	0,6	compilation error	3
<p>XYZ company database has Customer personal Information. View table using which customer can update their personal information like address, phone number fields when user updates address and phone number fields in view table. We need to take care of updating address and phone number fields in underlying database base table automatically. What right solution do you suggest to implement this requirement?</p>	Implement using Stored Procedures	Implement using triggers	Implement using cursors	Implement using functions	2
<p>DIV tag creates linebreaks similar to paragraph tags.State true or false.</p>	TRUE	FALSE			2

Which complex type signifies that only one of the child elements can appear?	<pre><xs:complexType name:CountryInfo"><xs:sequence> <xs:element name="countryName" type="xs:string"/> <xs:element name=""states" type="xs:integer"/> </xs:sequence></xs:complexType></pre>	<pre><xs:complexType name:CountryInfo"><xs:choice> <xs:element name="countryName" type="xs:string"/> <xs:element name=""states" type="xs:integer"/> </xs:choice></xs:complexType></pre>	<pre><xs:complexType name:CountryInfo"><xs:all><xs:element name="countryName" type="xs:string"/> <xs:element name=""states" type="xs:integer"/> </xs:all></xs:complexType></pre>	None	2
What will be the output of the below query? select instr('My SQL World','a') from dual;	Query contains error	Prints 14	Prints 6	Prints 0	4
How will you access a servlet context initialization parameter named "company-name"?	<code>\${initParam["company-name"]}</code>	<code>\${init.companypname}</code>	<code>\${contextParam.company-name}</code>	<code>\${init['company-name']}</code>	1
"Variables in Java Script should be declared with data types". State true or false.	TRUE	FALSE			2
Which method removes the attribute with the given name from the ServletContext interface?	<code>void clearAttribute(String name)</code>	<code>void removeAttribute(Object name)</code>	<code>void removeAttribute(String name)</code>	<code>void flushAttribute(String name)</code>	3

A Web application developed for an institution requires insertion of a header file comprising the logo and institution name. Identify the correct JSP tag from the options given below to add the logo and institution name to all the pages of the Web application. Select one:	<%@ page import="Header.html"%>	<form method="post" action="Header.html">	<jsp:forward page="Header.html">	<%@ include file="Header.html"%>	4
In which of these following getAttribute() and setAttribute() method has defined?	ServletResponse	HttpListener	ServletRequest	HttpSession	3,4
How to divide the page into two equal halves when we are using frameset?	By using colspan	By using rowspan	By using cols=50%.50%	By using rows=50%.50%	3,4
Examine the PL/SQL Block declare result Number; num1 Number:=&number1; num2 Number:=&number2; begin select num1/num2 into result from dual; dbms_output.put_line('Result is ' result); exception when ZEROS_DIVIDE then dbms_output.put_line('Exception Occured Divide by Zero'); end; / What will be the output of the above code when user passes the value for NUM1 as 0 and NUM2 as 10?	compilation fails	Result is 0	Exception occurred divide by zero	Result is 10	2
Consider you are developing web application. Which of the following option is avalid in JSP for importing the package?	<%@ page session="true"%>	<%@ page import="java.util.*"%>	<%@ include autoFlush="java.util.*"%>	<%@ include import="java.util.*"%>	2

<p>Consider the following statements:</p> <p>Statement A: When tags are implemented with tag handlers written in Java, each tag in the library must be declared in the TLD with a tag element.</p> <p>Statement B: The tag element contains the tag name, the class of its tag handler, information on the tag's attributes and information on the variables created by the tag.</p> <p>Which of the following is true about these statements?</p>	A is true and B is false	Both are true	A is false, B is true	Both are false	2
In JavaScript, for reading the contents inside the first paragraph tag which statement is used?	document.getElementsByTagName("p")[0].innerText()	None	document.getElementsByTagName("p[0]").innerText()	document.getElementsByTagName("p").innerText()	1
Which of the following is valid declaration in JSP using declaration tag?	<%@ String name="Anand" %>	<%= public String name="Anand";%>	<!!% String name="Rocky"%>	<%! String name="Rocky";%>	4
Predict output of Expression Language $\$ 7*k\}$ if k is null:	Null	7	Error		1
What are the major areas PMD tool scans java code?	Possible performance bottlenecks	Coding Standards	Violation of best practice	All the listed options	4
What part of database trigger determines the number of times the trigger body executes?	Trigger type	Trigger event	Trigger timing	Trigger body	1

<p>What will be the output for following code?</p> <pre> public class Exception1{ public static void main(String args[]){ int i=1,j=1; try{ i++; j--; if(i/j > 1) i++; }catch(AirthmeticException e) { System.out.println(0); }catch(ArrayIndexOutOfBoundsException e) { System.out.println(1); }catch(Exception e) { System.out.println(2); } finally { System.out.println(3); } System.out.println(4); } } </pre>	print 34	print 1	print 034	print 3	3
<p>XYZ Company database tables are accessed by several users but for few users need to be provided provision for updating information like address, phone number, email address in secured manner without providing direct access to underlying database base tables. What will the right solution you will implement in such scenerio to meet requirement?</p>	Use database functions	Create views	Use database trigger	User cursors	2
<p>Which of the following tag is used to specify the initialization parameters in the web.xml file?</p>	<url-pattern>	<servlet-mapping>	<servlet>	<init-param>	4
<p>Choose valid expression language statement for accessing textfield elements whose name is userid.</p>	<code>\${param.userid}</code>	<code>request.getParameter("userid")</code>	<code>#{param.userid}</code>	None	1
<p>Filters can create responses by themselves. State true or false.</p>	TRUE	FALSE			2

John wants to see how many employees are there whose salary is above average. Which of the following query will help john to achieve this task?	Select count(*) from emp where sal > (select avg(sal)) from emp);	Select count(*) from emp where sal exist (select avg(sal)) from emp);	Select count(*) from emp where sal > (select Average(sal)) from emp);	Select count(*) from emp where sal > (select max(sal)) from emp);	1
_____ are small amounts of data sent by a program to the browser and stored on the user's machine to be retrieved later.	Session variables	Application variables	Cookies	Objects	3
Consider you are maintaining XYZ company database. XYZ database tables are accessed by several users to fetch daily reports by joining multiple tables found each user writes query which is more than 100 line of SQL statement and submits to server for processing in order to fetch results. This is really increasing the network traffic and also response time. What will the right solution you will implement in such scenarios in order to increase performance?	Create Stored Procedure	Create view	Create Trigger	Create index	1
What does XSL stands for?	Extensible StyleSheet Language	Extensible Style Language	Extensive StyleSheet Language	None	1
Which parser is a W3C standard?	SAX	DOM	XHTML	None	2
You are developing a web application using Servlets. You have to use filters so that the web container intercepts the incoming requests before it is forwarded to the servlet. Which of the following method is called for every request intercepted by the filter?	doGet	destroy	init	doFilter	4

Smith is developing an application using Java Server Pages. The name of the component that he has created is "Emp".he has included the following statement in her application: <jsp:setProperty name="Emp"property=*/> What would be the result of the above code?	It will give run time error	It will iterate over the current ServletRequest parameters and setting each matched property to the value of matching parameter	It will iterate over the current ServletRequest parameters and would not set any property to the value of matching parameter	It will iterate over the current ServletRequest parameters and getting each property to the value of matching parameter	2
Which method of jsp is equivalent to service method of servlet?	service()	_jspService()	jsp_Service()	jspService()	2
Consider the development scenerio where you have created Employee class with implementation code and as per the project requirement you have to ensure that developer in team reusing code written in Employee class only using inheritance by extending the employee class but not by creating the instance of Employee object directly. Please suggest the solution to implement given requirement?	Make Employee class methods public	Make Employee class methods private	Make Employee class with final keyword	Make Employee class with abstract keyword	4
public class Person { private String name; public Person(String name) { this.name = name;} public boolean equals(Person p) { return p.name.equals(this.name); } } Which statement is true?	This class must also implement the hashCode method as well	The equals method does NOT properly override the Object class's equals method	The code will compile as Object class's equals method as well	Compilation fails because the private attribute p.name cannot be accessed	1

Consider you are developing a JDBC application, where you have to retrieve quarterly report from database by executing database store procedure created by database developer. Which statement API you will use to execute store procedure and retrieve resultSet information?	PreparedStatement	None	CallableStatement	Statement	3
Translation and Compilation of JSP happens during:	Deployment	Execution	None	Undeployment	1
Enumeration is having remove() method. State true or false.	TRUE	FALSE			2
If your JDBC connection is in auto-commit mode, which it is by default, then every SQL statement is committed to the database upon its completion. State true or false.	TRUE	FALSE			1
What are the types of refactoring?	Method Level	Logical Structure	Class Level Structure	Physical Structure	1,3,4
Which of the following statements is correct about an Exception?	It occurs during linking	It occurs at run-time	It occurs during compilation	It occurs during Just-In-Time Compilation	2
Consider the following code for an HTML form. <pre><form action=?/servlet/Login?> <input type=?text? name=?username? value=?enter username?/> <input type=?submit? name=?submitButton? value=?signin!..?/> </form></pre> Which of the following happens upon pressing the submit button in the above form?	A request is sent with HTTP method GET	A request is sent with HTTP method POST	The parameter username is the only parameter passed to the web server in the request	The parameter username and sbbutton are passed to the web server in the request URL	1,4
Which of the following statements is incorrect about delegate?	Delegates are object oriented	Delegates are reference types	Only one method can be called using a delegate	Delegates are type-safe	3

select the right coding best practices followed while using java Collections.	Copy collections into other collections by calling addAll() methods instead using iterator to copy each collection element	Use for loop instead of iterator	Use Collections with generic with same type of data	All the listed options	1,3
Which of the following is an empty tag in HTML?	 	<input>	<h1>	<a>	1
Which of the following used by container to validate a custom tag in a JSP page?	Tag Library Descriptor	web.xml	Xmlspy	Xerces	1
identify the type of variable declared VARIABLE City Vatchar2(20).	Host Variable	Bind Variable	Invalid Variable declaration	Global Variable	2
BufferedWriter constructor CAN ACCEPT FileWriter Object as a parameter. state true or false.	TRUE	FALSE			1
Which of the following are used for executing client side script?	JSP	Servlets	JavaScript	VBScript	3,4
An art of identifying, organizing, controlling and verifying the modification to the software work products built by the developer.	HCM	SDLC	SVN	SCM	4
Method keySet() in Map returns a set view of the keys contained in that map. State true or false.	TRUE	FALSE			1
Consider you are developing java application in a team consists of 20 developers and you have been asked to develop class by Name ProgrammerAnalyst and to ensure that other developers in team use ProgrammerAnalyst class only by creating object and team member should not be given provision to inherit and modify any functionality written in ProgrammerAnalyst class using inheritance. how do you achieve this requirement in development scenerio?	Declare the Programmer Analyst class as final	Declare the Programm erAnalyst class as abstract	None of the listed options	Declare the Programmer Analyst class as private	1

sam is writing a web application program. he has implemented ServletContextListener interface in his web application program. Which method of ServletContextListener interface he should use to perform startup activities for web application?	initiateContext()	start()	init()	contextInitialized()	4
How can you execute a stored procedure in the database?	Call method run() on a PreparedStatement Object	Call method executeProcedure() on a CallableStatement Object	Call method execute() on a PreparedStatement Object	Call method execute() on a CallableStatement Object	4
Which statement is true about Java server pages?	Used to build dynamic web pages	all of the listed options	Platform dependent	HTML files with special tags that contain java source code to generate dynamic content	1,4
Consider a development scenario where you want to write the object data into persistence storage devices (like file,disk etc.). using which of the below concept you can achieve the given requirement?	Deserialization	Finalization	Serialization	Synchronization	3
An ObjectOutputStream serializes objects previously written using an ObjectInputStream. state true or false.	TRUE	FALSE			1
You have a row level BEFORE UPDATE trigger on the EMP table. This trigger contains a SELECT statement on the EMP table to ensure that the new salary value falls within the minimum and maximum salary for a given job title. What happens when you try to update a salary value in the EMP table?	The Trigger fails because you cannot use the minimum and maximum functions in a BEFORE UPDATE trigger	The Trigger fails because a SELECT statement on the table being updated is not allowed	The Trigger fires successfully	The trigger fails because it needs to be a row level AFTER UPDATE trigger	3

<p>Consider the following statements:</p> <p>Statement A: A resource is passive when it does not have any processing of its own.</p> <p>Statement B: The content of a passive resource does not change.</p> <p>Which of the following is true about these statements?</p>	A is true and B is false	Both are true	A is false, B is true	Both are false	2
<p>What will be the output for following code?</p> <pre>public class CompareStrings{ public static void main(String [] args){ String a= new String("string"); String s= new String("string"); if(a == s) System.out.println("both strings are equal"); else System.out.println("both strings are not equal"); } }</pre>	compilation error	both strings are not equal	both strings are equal	Strings cannot be compared using == operator	2
<p>Which of the following statements are true?</p> <p>Statement 1: When a thread is sleeping as a result of sleep(), it releases its locks.</p> <p>Statement 2: The Object.wait() method can be invoked only from a synchronized context.</p>	Stmt 1 is true and stmt 2 is false	Both are true	Stmt 2 is true and stmt 1 is false	Both are false	3

Which of the following describes JSP life cycle management?	none	loading invoking, destroy. user should manage this life cycle	invoking, destroy, web browser manages this life cycle	Translation & compilation, Instantiation, initialization, service destroy container manages this life cycle	4
How do you declare a tag library within a JSP page to use custom tags?	By using unique variable	By using scriptlet	By using taglib directive	By using path to the tag handler	3
What will be the output of below query? select to_CHAR(sysdate+(10/400),'HH:MI:SS') from dual;	query contains error	adds 10 minutes to the current timestamp	adds 10 days to the current timestamp	adds 10 seconds to the current timestamp	2
"Consider Vijay is developing web page using HTML. Which method he can use for sending data security on submitting the form? I. POST II. GET"	II	I	Both I & II	None	2
Automatic page refresh can be done by using refresh Meta Tag. State true or false.	TRUE	FALSE			1
Consider the following deployment descriptor(web.xml) file: <session-config> <session-timeout> 30 </session-timeout> </session-config> Then, in the Servlet program code setMaxInactiveInterval(600)(seconds)for the session object is invoked. After how long would session expire?	30 minutes	10 minutes	gives illegalStateExcep tion	None	1

Which attribute of the @ Register directive indicates the name you want to associate with the user control for the current page?	TagName	Src	Cntrl	TagPrefix	4
Which of the following is a marker interface used for object serialization?	Externalization	Runnable	Serialization	None	4

1. Expression language -- `${expr}`
2. JSP writer – out
3. Program with `try{ system.exit(0) }` --- A
4. Program with empty `try { }` --- A,C
5. Syntax of cursors ---declare,open,fetch,close
6. Jsp life cycle—translate-compile-load-execute
7. Superclass-subclass access specifier—protected-default
8. Program with collections—compilation error
9. Not List implementation—Hashtable,properties
10. Container for enterprise edition—EJB
11. Get first paragraph—`document.getElementByTagName("p")[0]`
12. Package—java.sql and javax.sql
13. Structure of java prog—package-import-class-methods
14. True about constructors—constructors can be overloaded
15. Xml syntax--`<? Version="1.0" ?>`
16. Syntax for message--`<message> if a < 60</message>`
17. Custom tags—taglib directory
18. JAXP-java API fro XML processing
19. DOM—Document Type Definition
20. XSL—Xtensible style sheet language
21. Http is stateless
22. Program which is error—line 6
23. Java scripts can be written as—al the above
24. Program with divide by zero—only arithmetic exception
25. Thread program –compilation error

26. Request dispatcher—include and forward
27. Alter table table_name DISABLE ALL TRIGGERS
28. String compared with == --- compilation error
29. Comparable override—compareTo
30. Buffer writer—false
31. Return type of next()—object
32. Interface of HttpServletRequest—servlet request
33. HttpSession session=request.getSession,String s=(String)session.getParameter()
34. getInitParameter(String name)
35. best practice for list – all the checkbox
36. Long l—compilation error
37. Public int i=10,sysout(i++)—compilation error
38. 1000 jsp how many servlets—1
39. Stored procedures—callable statements
40. Page directive—import
41. While with wrapper int,byte,short—true
42. Pgm int x=3,switch(x) case... -- ans-3,4
43. InputStream for characters—false
44. Session.invalidate(2 ques)
45. Initialization in web.xml--<init-param>
46. Runtime exceptions—Null pointer and array out of bound
47. Statement questions—statement A false and statement B true
48. Scriplet—date in hh:mm:ss format
49. Bind variable
50. Database triggers—replicate constraints,global centralizes operations

51. String tokenizer--- 5

52. Coding conventions—all the above

1- What is abbreviation of jaxp?

Java api for xml processing

2- Do we have remove attribute in enumeration?

yes

3- Which method of jsp can be overridden?

a- `_jspService()` b- `_jspInit()` c- `_jspDestroy()`

Which is a w3 standard?DOM

4- Which has better performance joins or subqueries?Joins

5- Which text is not parsed in xml?CDATA

8- Does HTML contain program logic?NO.

6- select $(2+3*4/2-5)$ from dual; ans:3

10- `String s1=new String("abc");`

`String s2=new String("abc");`

`System.out.println(s1.compareTo(s2));` ?ans:0

11- `StringBuffer i=new StringBuffer("welcome")`

`StringBuffer j=new SrtingBuffer("welcome")`

`If(i.equals(j))`

`Sop("i equals j");`

`If(i.equals(i))`

`Sop("i equals i");`ans:I equals i

12- `Integer a=new Integer(2);`

`Integer b=new Integer(2);`

`System.out.printn(a==b);` ?ans:false

13- httpServletRequest is _____ a)HttpRequests sub interface)it's not a sub interface c)HttpServletans:c

15- Jsp after processing what will it return to client a)jsp b)html c)source servlet d)compiled servlet

16- Many users accessing lots of tables each using more than 100 lines of code.

What is the best option?

1.View 2.Index 3.Stored Procedure

18- try{

int i=10;

int j=i/0;

return;

}

catch()

{

Sop("welcome");

}

SOP(j);

What happens?

1.prints welcome 2.Runtime-error 3.Compilation error ans:3

20- how to divide a page into two rows?

a)rowspan b) colspan c)rows="50%50%" d)cols="50%50%"ans:c

21- why expression language is used in JSP page?Ans:c

a)write java code b)import files c)print statements d)declare variables

22- how to disable all triggers?ans: alter table <table-name> disable all triggers

23- form action to what attributes will be redirected to next page..ans:d

a)get b)post c)the parameter is added in httprequest

d)the parameter along with submit is added to request

24- which creates container of webpage ans:1

i)DIV ii)Span

26- whether we have to specify datatype in java Script?Ans: not required

28- Filters can generate auto-response : true/False?Ans:true

29-JDBC statements are included in which package? Ans:java.sql.*

30-Which reference object in jsp is used in Http servlet Response

a)session

b)context

c)request

d)responseans:d

31- how to import a package into JSP?Ans: a

a) <@ page import="java.util.*">

b) < @include import="java.util.*">

c) < @import="java.util.*">

32- line 1 : String string1 =new String("Hi");

line 2: String string2 =String1;

line 3: String1= new String("hello");

line 4: String2= new String("world");

In which line garbage collection takes place? Ans:line4

33- which is a build tool? Ans:a

a) ANT b)pmd c)cmd

34)how print the request address?

a){request.address} b){param.address}

35)which of the following is a marker interface?

a)serializable b)runnable c)externalizable

36) which of the following is a child element of filter?

a) filter-class b) display-name c) Init d) context e) config

37) a developer creates a class which he does not want anyone to inherit or modify. What should he do? Declare it as -

1. final

2. abstract

3. private

1. how to disable the session

a. Session.invalidate()

2. $\text{select}(2+3*4/2-5)$ from dual

a. 3

3. Include one or more HTML file

a. Frameset

4. Override comparable

a. CompareTo

5. DTD = document type definition

6. XSL = extensible Style sheet language

7. Which is safe, post, get = post

1. A JSP page needs to set the property of a given JavaBean to a value that is calculated with the JSP page. Which of the following jsp:setProperty attributes must be used to perform this initialization? (Choose 3)

a. value

b. property

c. name

d. attribute

e.id

2.Where is JSP executed?

- ☐ a.Both in Server Machine and Client Machine
- ☐ b.Depends upon configuration
- ☐ c.Client machine
- ☐ d.Server machine

3.Which of the following are true about MVC architecture?(Choose 3)

- ☐ a.Servlet forms the controller part
- ☐ b.Ease of maintenance and promotes reusability
- ☐ c.JSPs are the target of all requests
- ☐ d.Servlets are the target of all requests
- ☐ e.JSP forms the controller part

4.Identify model component in an MVC pattern.

- ☐ a.Browser
- ☐ b.ActionServlet
- ☐ c.JSP
- ☐ d.Data Bean

5.Which of the following statement is correct?

- ☐ a.You can override init() method but you should not.
- ☐ b.You override init() method to fetch init params and execute an initial code.
- ☐ c.You override init() method to set an init param
- ☐ d.You override init() method to cleanup database connection

6.Select the correct flow of Servlet lifecycle

- ☐ a.Loading->Instantiation->Initialization->Execution->Destroy
- ☐ b. Loading->Execution ->Instantiation->Initialization ->Destroy

☐ c. Loading->Initialization ->Instantiation ->Execution->Destroy

☐ d. . Loading->Initialization ->Instantiation ->Execution->Destroy

7. ____ is a collection of actions that encapsulate some functionality to be used from within a JSP page.

☐ a.Tag library descriptor

☐ b.URI

☐ c.Presentation

☐ d.Tag library

8.A serializable object for transferring data over the network is an example of which of the following design pattern?

☐ a.Assembler

☐ b.Session Façade

☐ c.Transfer Object

☐ d.Network Object

9.Which of the following statements are True?(Choose 2)

a.A JSP must contain some Java code

b.JSP executes faster than HTML

c.A JSP can contain only HTML

d.A JSP is executed at server and plain HTML is sent back to the client browser

10. Which of the following statements is TRUE?

☐ a.A servlet is a JSP file with embedded Java

☐ b. A servlet is a java program with embedded HTML

☐ c.None of the listed options

☐ d.A JSP is a Java program with embedded HTML

11.Which of the following statements are TRUE?(Choose 3)

a.The purpose of EL is to make a JSP script free

b.EL is evaluated at client machine

c.EL stands for Extended Language

d.EL is enabled is a JSP by default

e.EL is a simple and powerful replacement of Standard Actions

12.How will you access a servlet context initialization parameter named "company-name"?

o a.`${init.company-name}`

o b. `${init['company-name']}`

o c. `${initParam["company-name"]}`

o d.`${contextParam.company-name}`

13.Using multiple JSP components to construct your view is an example of

o a.ViewHelper Pattern

o b.Service Locator

o c.Pattern Proxy Pattern

o d.Composite View Pattern

14.In an Expression Language `#{8/0}`-displays Infinity

o True

o False

15.When declaring listener in the DD, which sub-elements of the `<listener>` element are required(Choose all that apply)

o a.`<listener-class>`

o b.`<listener-type>`

o c.`<listener-name>`

o d.`<listener-class-name>`

16. Which of the following can store attributes?(Choose 3)

a.`ServletResponse`

b. HttpServletRequest

c. ServletContext

d. HttpSession

17. What is the return type of `getAttribute()` method of `HttpServletRequest`?

☐ a. Object

☐ b. String

☐ c. Attribute

☐ d. None of the above

18. Which of the following are used to retrieve the value associated to the parameter name provided within the `<init-param>` tag?

☐ a. `getServletContext().getInitParameter(paramname)`

☐ b. `getServletConfig().getInitParameter(paramname)`

☐ c. `getServletContext().getParameter(paramName)`

☐ d. `getServletConfig().getParameter(paramName)`

19. Init parameter can be called from servlet constructor.

☐ True

☐ False

20. Where is JSP translation and compilation carried?

☐ Deployment

21. Writer object for response

`response.getWriter()`

`response.getWriter().getOutputStream()`

22. Java bean are Java classes with getter and setter property

☐ True

☐ False

23.EL implicit and JSP are same

- ☐ True
- ☐ False

24.Session shutdown formally

- ☐ Session.invalidate

25.Binary stream can be sent after servlet processing

- ☐ True
- ☐ False

26.Which scope to use, so that all JSPs can access the resource?

- ☐ Request
- ☐ Session
- ☐ Application
- ☐ Page

27.Which is MVCs strut framework controller?

- ☐ ActionServlet
- ☐ Data bean
- ☐ JSP
- ☐ None of these

28.Which is the default scope of <jsp:usebean> and <jsp:getProperty> actions?

- ☐ a.Page
- ☐ b.session
- ☐ c.request
- ☐ d.application

29.The requested resource is returned in a message body of a HTTP response.

- ☐ True

☐ False

30. You are designing a complex webapp that uses multi-tier architecture. The application must provide UI interfaces for HTML as well as XML and should be maintained. Which design pattern would you use?

☐ a. Business Delegate

☐ b. MVC

☐ c. Data Access Object

☐ d. Data Transfer Object

31. Which statements about ServletContext initialization parameters are true?

☐ a. They should be used for data that changes rarely.

☐ b. They should be used for data that changes frequently.

☐ c. They can be accessed using `ServletContext.getParameter()`.

☐ d. They can be accessed using `ServletContext.getInitParameter()`.

☐ e. They should be used for data that is specific to a particular servlet.

☐ f. They should be used for data that is specific to an entire web application.

32. "Your servlet class depends on a utility class named `com.abc.TaxUtil`. Where would you keep the `TaxUtil.class` file?

☐ a. `WEB-INF`

☐ b. `WEB-INF/classes` (Question was not the exact one but answer was this)

☐ c. `WEB-INF/lib`

☐ d. `WEB-INF/jars`

☐ e. `WEB-INF/classes/com/abc`

33. To get value of address request parameter?

☐ `request.getParameter("address")`

34. Some question on active and passive resource (Choose 3)

35. Front Controller properties

36. Which is not JSP implicit object? (Choose 3)

Request scope

Session

Out

context

Question 1

Select which of the following XML documents are well-formed XML documents.

a. `<productname>Electric Water Heater&piccoro_</productname>`

b. `<productname>"Water Purifier(<<6>>)"</productname>`

c. `<productname>Dehumidifier "XZ001" </productname>`

d. `<productname/ >`

Correct answer : c

Question 2

Select which of the following is correct with respect to the description position of the attribute definition if

an element is defined within XML Schema, and an attribute is added to that element.

a. The attribute definition is described before the complex type definition model group.

b. The attribute definition is described within the complex type definition model group.

c. The attribute definition is described after the complex type definition model group.

d. If the attribute definition is inside the complex type definition, there are no restrictions on the description position

Correct answer : c

Question 3

Select which of the following is the specification used when transforming XML documents to HTML.

a. XSLT

b. DTD

- c. XML Schema
- d. SOAP

Correct answer : a

Question 4

Select which of the following is correct with respect to an XML parser.

- a. An XML parser transforms XML documents using an XSLT style sheet
- b. An XML parser checks whether an XML document is a well-formed document
- c. An XML parser must be able to conduct validity verification to qualify as an XML parser
- d. An XML parser is software developed by the W3C

Correct answer : b

Question 5

Select which of the following describes the method to ensure that the character encoding for transformation results is "UTF-16" when applying an XSLT stylesheet to a source XML Document, and outputting the transformation results.

- a. Make the character encoding of the source XML Document "UTF-16"
- b. Make the character encoding of the XSLT stylesheet "UTF-16"
- c. Designate "UTF-16" as the encoding attribute of the xsl:template element that is described first in the XSLT stylesheet
- d. Designate "UTF-16" as the encoding attribute of the xsl:output element

Correct answer : d

Question 6

Select which of the following is a correct XML declaration description.

- a. `<?xml version="1.0" encoding="">`
- b. `<?xml encoding="UTF-8">`
- c. `<?xml encoding="UTF-8" version="1.0"?>`

d. <?xml version="1.0"?>

Correct answer : d

Question 7

Select which two of the following are correct with respect to a DTD.

- a. Designate #PCDATA in an element type declaration to define an element in which only character data is included
- b. Designate CDATA in an element type declaration to define an element in which only character data is included
- c. Designate ANY in an element type declaration when you do not wish to have any content in an element
- d. Designate EMPTY in an element type declaration when you do not wish to have any content in an element

Correct answer : a, d

Question 8

Select which of the following files has the correct extension as a file storing an XML document.

- a. a.xml
- b. b.html
- c. c.txt
- d. All of the above

Correct answer : d

Question 9

Which of the following XML Schema definitions is not correct if you wish content element contents to be a

text string that does not include tabs (#X9), linefeeds (#xA) or carriage returns (#xD), or a text string that replaces tabs (#X9), linefeeds (#xA) and carriage returns (#xD) with blank space?

Assume that the XML Schema namespace prefix is "xs".

- a. <xs:element name="Content" type="xs:token" />
- b. <xs:element name="Content" type="xs:normalizedString" />
- c. <xs:element name="Content" type="xs:string" />
- d. <xs:element name="Content" type="xs:NMTOKEN" />

Correct answer : c

Question 10

Select which of the following elements should be used to sort the node set order in an XSLT stylesheet. The XSLT namespace prefix is "xsl".

- a. xsl:sort
- b. xsl:orderBy
- c. xsl:order
- d. The node set order cannot be sorted in an XSLT stylesheet

Correct answer : a

Question 11

Select which two of the following are valid XML document with respect to "DTD", below.

```
<!DOCTYPE Calendar [
<!ELEMENT Calendar (Month,(Date,Day)+)*>
<!ELEMENT Month (#PCDATA)>
<!ELEMENT Date (#PCDATA)>
<!ELEMENT Day (#PCDATA)>
<!ATTLIST Calendar Year CDATA #IMPLIED>
]>
```

a.

```
<Calendar Year="2007">
```

```
<Month>January</Month>
<Date>1</Date>
<Day>Monday</Day>
<Date>2</Date>
<Day>Tuesday</Day>
<Date>3</Date>
<Day>Wednesday</Day>
</Calendar>
```

b.

```
<Calendar Year="2007">
<Month>January
<Date>1</Date>
<Day>Monday</Day>
<Date>2</Date>
<Day>Tuesday</Day>
<Date>3</Date>
<Day>Wednesday</Day>
</Month>
</Calendar>
```

c.

```
<Calendar>
<Month>January</Month>
<Month>February</Month>
<Month>March</Month>
</Calendar>
```

d.

<Calendar/>

Correct answer : a, d

Question 12

Given "XML Document" below, select the namespace to which the Id attribute belongs.

"XML Document"

<ItemList xmlns="urn:example:Item"

xmlns:Item01="urn:example:Item01">

<Item01:ItemInformation Id="X01-0001">

<ItemName>XML SchemaProblemSet1</ItemName>

<Price>1500</Price>

</Item01:ItemInformation>

</ItemList>

a. ItemInfo

b. urn:example:Item

c. urn:example:Item01

d. The Id attribute does not belong to a namespace

Correct answer : d

Question 13

Select which of the following is a correct element type declaration for the occurrence of the "FirstName" element and the "LastName" element in that order as the child element of "Name" Element.

a. <!ELEMENT Name (FirstName) >

<!ELEMENT Name (LastName) >

b. <!ELEMENT Name (FirstName, LastName) >

c. <!ELEMENT Name (FirstName | LastName) >

d. <!ELEMENT Name (FirstName / LastName) >

Correct answer : b

Question 14

Select which two of the following are described as the top-level element in an XSLT stylesheet. The XSLT namespace prefix is "xsl".

a. xsl:stylesheet

b. xsl:transform

c. xsl:template

d. xsl:output

Correct answer : a, b

Question 15

Select which of the following is required for a well-formed XML document.

a. XML declaration

b. Schema definition

c. Element

d. Entity reference

Correct answer : c

Question 16

Select which three of the following must always be a well-formed XML document.

a. XHTML documents

b. XML Schema documents

c. XSLT style sheets

d. Output results from XSLT style sheets

Correct answer : a, b, c

Question 17

Select which two of the following are the XML Schema element element that defines a number of occurrences between 1 and 5 for the "Telephone_Number" element.

<xs:element name="Telephone_Number" type="xs:string" />

a. <xs:element ref="Telephone_Number" minInclusive="1" maxInclusive="5" />

b. <xs:element ref="Telephone_Number" minOccurs="1" maxOccurs="5" />

c. <xs:element ref="Telephone_Number" maxInclusive="5" />

d. <xs:element ref="Telephone_Number" maxOccurs="5" />

Correct answer : b, d

Question 18

Select which three of the following are valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Data" type="dataType" />

<xs:complexType name="dataType">

<xs:sequence>

<xs:element ref="DataFile" maxOccurs="100" />

</xs:sequence>

</xs:complexType>

<xs:element name="DataFile" type="dataFileType" />

<xs:complexType name="dataFileType">

<xs:sequence>

<xs:element ref="DataFileName" />

</xs:sequence>

```
</xs:complexType>
<xs:element name="DataFileName" type="xs:string" />
</xs:schema>
```

a.

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
    <DataFileName>accountList.xml</DataFileName>
  </DataFile>
  <DataFile>
    <DataFileName>productList.xml</DataFileName>
  </DataFile>
</Data>
```

b.

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
    <DataFileName>accountList.xml</DataFileName>
    <DataFileName>productList.xml</DataFileName>
  </DataFile>
</Data>
```

c.

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
```

```
<DataFileName>accountList.xml</DataFileName>
</DataFile>
</Data>
```

d.

```
<?xml version="1.0" encoding="UTF-8"?>
<DataFile>
<DataFileName>accountList.xml</DataFileName>
</DataFile>
```

e.

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
<DataFile/>
</Data>
```

Correct answer : a, c, d

Question 19

Select the XPath expression that fits in _____ (1) _____ of “XSLT Stylesheet” when “XSLT Stylesheet” is applied to the given “XML Document” to output “Transformation Results”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
<UserList>
<UserID Password="xxxxxx" authority="administrator">User01</UserID>
<UserID Password="zzzzzz" authority="general">User02</UserID>
<UserID Password="xyzxyz" authority="system">User03</UserID>
<UserID Password="yyyyyy" authority="general">User04</UserID>
</UserList>
```

“Transformation Results”

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<GeneralUserList>
```

```
<UserID>User02</UserID>
```

```
<authority>general</authority>
```

```
<UserID>User04</UserID>
```

```
<authority>general</authority>
```

```
</GeneralUserList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<GeneralUserList>
```

```
<xsl:apply-templates select="_____ ( 1 ) _____" />
```

```
</GeneralUserList>
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<UserID><xsl:value-of select="text()" /></UserID>
```

```
<xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

a. `UserList/UserID[@authority='general']`

b. `UserList/UserID/@authority='general'`

c. `UserList/UserID/[@authority='general']`

d. There is no correct description, since there is an error in the XPath expressions

Correct answer : a

Question 20

Select which of the following is the correct combination of XML Schema elements when a simple type element is defined by the XML Schema, and restrictions have been placed on the simple type.

- a. element element, simpleType element, extension element
- b. element element, complexType element, extension element
- c. element element, simpleType element, restriction element
- d. element element, complexType element, restriction element

Correct answer : c

Question 21

Select which two of the following correctly describes the difference between HTML and XML.

- a. Under HTML, the names and meanings of tags have been predefined. Under XML, well-formed XML documents allow for the free description of tags.
- b. HTML is a grass roots de facto standard, while XML has been drafted by the W3C.
- c. HTML cannot mark up semantic information for data. XML can mark up semantic information for data.
- d. HTML is not a markup language. XML is a markup language.

Correct answer : a, c

Question 22

Select which two of the following elements may be used for conditional branch processes in an XSLT stylesheet.

- a. xsl:case
- b. xsl:choose
- c. xsl:if
- d. xsl:switch

Correct answer : b, c

Question 23

Select which of the following is a well-formed XML document.

a.

<Bylaw>

The final decision-making authority is the <Department>General Affairs
Department</Department><Position>Section Chief</Position>

</Bylaw>

b.

<Article>Article 2</Article>

<Bylaw>

The final decision-making authority is the General Affairs Department Section Chief.

</Bylaw>

c.

<Bylaw>

<Final_decision-making_authority Department="General Affairs Department" Position="Section Chief">

</Bylaw>

d.

<Bylaw>

<Final_decision-making_authority><Department>General Affairs Department<Position>Section
Chief</Department></Position></Final_decision-making_authority>

</Bylaw>

Correct answer : a

Question 24

Select which two of the following correctly explains the value that can be described in the "ItemPrice"

element content.

```
<xs:element name="ItemPrice" type="itemPriceType" />
```

```
<xs:simpleType name="itemPriceType">
```

```
<xs:restriction base="xs:int">
```

```
<xs:minInclusive value="500" />
```

```
<xs:maxInclusive value="2000000" />
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

a. The value "2000000" can be described, but the value "2000001" cannot be described

b. The value "1999999" can be described, but the value "2000000" cannot be described

c. The value "501" can be described, but the value "500" cannot be described

d. The value "500" can be described, but the value "499" cannot be described

Correct answer : a, d

Question 25

Select which is the best DTD definition to fulfill the "Requirements" below.

"Requirements"

once

ich may be omitted

a.

```
<!ELEMENT BookList ( BookInfo )*>
```

```
<!ELEMENT BookInfo ( BookName | ISBN )>
```

```
<!ELEMENT BookName (#PCDATA)>
```


<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>

b.

<!ELEMENT BookList (BookInfo)*>
<!ELEMENT BookInfo (BookName , ISBN)>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>

c.

<!ELEMENT BookList (BookInfo)+>
<!ELEMENT BookInfo (BookName | ISBN)>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>

d.

<!ELEMENT BookList (BookInfo)+>
<!ELEMENT BookInfo (BookName , ISBN)>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>

Correct answer : c

Question 26

Given "XML Document" below, select the namespace to which the ItemInformation element belongs.

"XML Document"

<ItemList xmlns="urn:example:Item"

```
xmlns:Item01="urn:example:Item01">
<ItemInformation Id="X01-0001">
<Item01:ItemName>XML SchemaProblemSet1</Item01:ItemName>
<Item01:Price>1500</Item01:Price>
</ItemInformation>
</ItemList>
```

- a. ItemInformation
- b. urn:example:Item
- c. urn:example:Item01
- d. ItemInformation element does not belong to a namespace

Correct answer : b

Question 27

Select which three of the following are incorrect when extending the definition of a simple type element that has been defined using XML Schema.

- a.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:simpleType name="newBookInfoType">
<xs:simpleContent>
<xs:extension base="bookInfoType">
<xs:attribute name="ISBN" type="xs:string" use="required" />
</xs:extension>
</xs:simpleContent>
</xs:simpleType>
```
- b.

```
<xs:element name="BookInformation" type="bookInfoType" />
```

```
<xs:simpleType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:simpleType>
```

c.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:extension base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

d.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:complexType>
```

Correct answer : a, b, d

Question 28

Select the correct description that fits in _____ (1) _____ of “XSLT Stylesheet” to obtain “Transformation Results” when “XSLT Stylesheet” is applied to the given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<ProductList>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
```

```
<ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
```

```
</ProductList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="ProductList/ProductName" />
```

```
</xsl:template>
```

```
<xsl:template match="ProductName">
```

```
_____ ( 1 ) _____
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

“Transformation Results”

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

a.

```
<xsl:if test="@ProductID='X01-0001'">  
<xsl:copy />  
</xsl:if>
```

b.

```
<xsl:if test="@ProductID='X01-0001'">  
<xsl:copy-of select="." />  
</xsl:if>
```

c.

```
<xsl:if test="@ProductID='X01-0001'">  
<xsl:copy select="." />  
</xsl:if>
```

d.

```
<xsl:if test="@ProductID='X01-0001'">  
<xsl:copy-of />  
</xsl:if>
```

Correct answer : b

Question 29

Which two of the following are correct when including “&” character within an element value?

a.

The “&” character cannot be included within an element value

b.

Enclose the “&” character in single quotes (“’”)

```
<Element1>you'&'me</element>
```

c.

Enclose the "&" character in double quotes ("")

<Element1>you"&"me</element>

d.

Use the predefined entity reference "&#;" for the "&" character

<Element1>you&#;me</Element1>

e.

Use a CDATA section

<Element1><![CDATA[you&me]]></Element1>

Correct answer : d, e

Question 30

From the following, select which specification was drawn up for the purpose of defining XML schema.

a. XSLT

b. DTD

c. XML Schema

d. Namespaces in XML

Correct answer : b, c

Question 31

Select which of the following is a valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

<?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="Personal_Information" type="newPersonalInfoType" />

<xs:complexType name="newPersonalInfoType">

<xs:complexContent>

<xs:extension base="personalInfoType">

```

<xs:sequence>
<xs:element ref="Birth_Date" />
<xs:element ref="Hobbies" maxOccurs="30" />
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:complexType name="personalInfoType">
<xs:sequence>
<xs:element ref="Name" />
<xs:element ref="Email_Address" />
</xs:sequence>
</xs:complexType>
<xs:element name="Name" type="xs:string" />
<xs:element name="Email_Address" type="xs:string" />
<xs:element name="Birth_Date" type="xs:string" />
<xs:element name="Hobbies" type="xs:string" />
</xs:schema>
a.
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
<Name>Taro Yamada</Name>
<Email_Address>tyamada@aaa.com</Email_Address>
<Birth_Date>1980-03-30</Birth_Date>
</Personal_Information>

```

b.

```
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
<Name>Taro Yamada</Name>
<Email_Address>tyamada@aaa.com</Email_Address>
<Birth_Date>1980-03-30</Birth_Date>
<Hobbies>Listening to music</Hobbies>
<Hobbies>Watching movies</Hobbies>
</Personal_Information>
```

c.

```
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
<Birth_Date>1980-03-30</Birth_Date>
<Hobbies>Listening to music</Hobbies>
<Hobbies>Watching movies</Hobbies>
<Name>Taro Yamada</Name>
<Email_Address>tyamada@aaa.com</Email_Address>
</Personal_Information>
```

d.

```
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
<Hobbies>Listening to music</Hobbies>
<Hobbies>Watching movies</Hobbies>
<Birth_Date>1980-03-30</Birth_Date>
<Email_Address>tyamada@aaa.com</Email_Address>
```


<Name>Taro Yamada</Name>

</Personal_Information>

Correct answer : b

Question 32

Select which of the following is incorrect with respect to XSLT stylesheets?

- a. Namespace may be used in XSLT stylesheets
- b. XSLT stylesheets must be well-formed XML documents
- c. The transformation rule of the XML document that is the source for the XSLT stylesheet and the transformation process model may be described in the XSLT stylesheet
- d. Only XML documents are allowed as output format for XSLT stylesheets

Correct answer : d

Question 33

Select which two of the following XML Schema documents correctly defines "Condition" below.

"Condition"

it" attribute, which must be described (may not be omitted)

a.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```
<xs:element name="Quantity" type="quantityType" />
```

```
<xs:complexType name="quantityType">
```

```
<xs:simpleContent>
```

```
<xs:extension base="xs:int" >
```

```
<xs:attribute name="Unit" type="xs:string" use="required" />
```

```
</xs:extension>
</xs:simpleContent>
</xs:complexType>
</xs:schema>
```

b.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity" type="quantityType" />
  <xs:complexType name="quantityType">
    <xs:attribute name="Unit" type="xs:string" use="required" />
  </xs:complexType>
</xs:schema>
```

c.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity">
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base="xs:int" >
          <xs:attribute name="Unit" type="xs:string" use="required" />
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

d.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="Quantity">
<xs:complexType>
<xs:attribute name="Unit" type="xs:string" use="required" />
</xs:complexType>
</xs:element>
</xs:schema>
```

Correct answer : a, c

Question 34

Select which two of the following are a well-formed XML document.

a.

```
<item color="white" color="yellow">Paint</item >
```

b.

```
<item color='red' price="100"/>
```

c.

```
<item color="red"
price="100">
Paint
</item>
```

d.

```
<item color="blue">
Paint
</item price="100">
```

Correct answer : b, c

Question 35

Select which of the following is the correct XSLT stylesheet to output "Transformation Results" sorted by the Password attribute value for the given "XML Document".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<UserList>
```

```
<UserID Password="xxxxxx" Delete="1">User01</UserID>
```

```
<UserID Password="zzzzzz" Delete="0">User02</UserID>
```

```
<UserID Password="xyzxyz" Delete="0">User03</UserID>
```

```
<UserID Password="yyyyyy" Delete="0">User04</UserID>
```

```
</UserList>
```

"Transformation Results"

User01/User03/User04/User02/

c c a b d d

a d d c

a a d d

b a b c

a b c b

d a c d

a c a c

b c a

a d c b

a b d b

d e b

c b d a

c

a.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="text" />
<xsl:template match="/">
<xsl:sort select="@Password" data-type="text" />
<xsl:apply-templates select="UserList/UserID" />
</xsl:template>
<xsl:template match="UserID">
<xsl:value-of select="." /><xsl:text>/</xsl:text>
</xsl:template>
</xsl:stylesheet>
```

b.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="text" />
<xsl:template match="/">
<xsl:apply-templates select="UserList/UserID" />
<xsl:sort select="@Password" data-type="text" />
</xsl:template>
<xsl:template match="UserID">
<xsl:value-of select="." /><xsl:text>/</xsl:text>
</xsl:template>
```

</xsl:stylesheet>

c.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="UserList/UserID">
```

```
<xsl:sort select="@Password" data-type="text" />
```

```
</xsl:apply-templates>
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<xsl:value-of select="." /><xsl:text>/</xsl:text>
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

d.

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="UserList/UserID" />
```

```
</xsl:template>
```

```
<xsl:template match="UserID">
```

```
<xsl:sort select="@Password" data-type="text">
```

```
<xsl:value-of select="." /><xsl:text>/</xsl:text>
```

```
</xsl:sort>
```

</xsl:template>
</xsl:stylesheet>

Correct answer : c

Question 36

Select which two of the following are correct description method for an XML element.

- a. A child element cannot have the same name as a parent element
- b. Only one root element may be described in a single XML document
- c. An attribute cannot be designated for an empty element
- d. A numeral cannot be used as the first character in an element name

Select any 2 option.

Correct answer : b, d

Numerals, periods, and hyphens cannot be used as the first character for element names, attribute names.

The correct answers are b and d.

Question 37

Select which of the following is a correct XML Schema definition if you must designate an integer less than

or equal to 0 as the content of the "Discount_Amount" element.

Assume that the XML Schema namespace prefix is "xs".

- a. <xs:element name="Discount_Amount" type="xs:negativeInteger" />
- b. <xs:element name="Discount_Amount" type="xs:positiveInteger" />
- c. <xs:element name="Discount_Amount" type="xs:"nonNegativeInteger" />
- d. <xs:element name="Discount_Amount" type="xs:nonPositiveInteger" />

Correct answer : d

Question 38

The following sentences describe characteristics of XML schema as compared to DTD. Select which of the

following is not correct.

- a. Since the specification is simple, using XML schema rather than DTD allows for shorter XML statements when defining the same schema structure.
- b. XML schema is a well-formed XML document.
- c. XML schema provides for various data types, including date type, integer type, etc.
- d. XML schema is compatible with XML namespace.

Correct answer : a

Question 39

Select which of the following is the correct transformation result when “XSLT Stylesheet” is applied to the

given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<UserList>
```

```
<UserID Password="xxxxxx" authority="administrator">User01</UserID>
```

```
<UserID Password="zzzzzz" authority="general">User02</UserID>
```

```
<UserID Password="xyzxyz" authority="system">User03</UserID>
```

```
<UserID Password="yyyyyy" authority="general">User04</UserID>
```

```
</UserList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:template match="/">
```

```
<SystemUserList>
```

```
<xsl:apply-templates select="UserList/UserID" />
```

```
</SystemUserList>
```



```
</xsl:template>
<xsl:template match="UserID">
<xsl:if test="@authority='system'">
<UserID><xsl:value-of select="text()" /></UserID>
<xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>
</xsl:if>
</xsl:template>
</xsl:stylesheet>
```

a.

```
<?xml version="1.0" encoding="UTF-8"?>
<UserID>User03</UserID>
<authority>system</authority>
```

b.

```
<?xml version="1.0" encoding="UTF-8"?>
<SystemUserList>
<UserID>User03</UserID>
</SystemUserList>
```

c.

```
<?xml version="1.0" encoding="UTF-8"?>
<SystemUserList>
<authority>system</authority>
<UserID>User03</UserID>
</SystemUserList>
```

d.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<SystemUserList>
<UserID>User03</UserID>
<authority>system</authority>
</SystemUserList>
```

Correct answer : d

Question 40

Select which of the following is a well-formed XML document.

a.

```
<Product_Information ProductID="X01-00001" Inventory="10">
```

b.

```
<Product_Information ProductID="X01-00001" Inventory="10">
<Product_Name>XML Certification Exam Workbook 1</Product_Name>
</Product_Information>
```

c.

```
<Product_Information ProductID="X01-00001" Inventory="10">
<Product_Name>XML Certification Exam Workbook 1</Product_Name>
</Product_Information Price="3000" Tax_Category="Tax Excluded">
```

d.

```
<Product_Information ProductID="X01-00001"
Inventory="2007/04/01 10"
Inventory="2007/04/02 5" >
<Product_Name>XML Certification Exam Workbook 1</Product_Name>
</Product_Information>
```

Correct answer : b

Question 41

When "XML Document" is read by an XML processor, what value does the entity reference "&food" replace?

Which of the following is the correct answer?

Assume that the XML processor is able to read "food.txt."

"XML Document"

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!DOCTYPE data [
```

```
<!ELEMENT data (#PCDATA|food)*>
```

```
<!ELEMENT food (#PCDATA)>
```

```
<!ENTITY food SYSTEM "food.txt">
```

```
]>
```

```
<data>I like to eat &food; </data>
```

food.txt

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<food>pasta</food>
```

a. food.txt

b. pasta

c.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<food>pasta</food>
```

d. <food>pasta</food>

Correct answer : d

Question 42

Which two of the following are correct description when double quote (") is included in an attribute value?

a.

Enclose the attribute value in single quotes

```
<Element1 Attribute1='Value 1' />
```

b.

Enclose the attribute value in double quotes

```
<Element1 Attribute1="Value 1" />
```

c.

Replace the double quote (") with the predefined entity reference "","

```
<Element1 Attribute1="&quot;Value1&quot;" />
```

d.

Since double quote (") is defined as characters that enclose the attribute value, they cannot be used as an

attribute value

Correct answer : a, c

Question 43

Select which of the following is correct as a definition adding a "Mobile" element to the "Personal_Information" element defined in the given "XML Schema Document".

"XML Schema Document"

```
<xs:element name="Personal_Information" type="personalInfoType" />
```

```
<xs:complexType name="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Name" />
```

```
<xs:element ref="Date_of_Birth" />
```

```
<xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
```

```
</xs:sequence>
```

```
</xs:complexType>
```

```
<xs:element name="Name" type="xs:string" />
```

```
<xs:element name="Date_of_Birth" type="xs:string" />
```

```
<xs:element name="Hobbies" type="xs:string" />
```

a.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
```

```
<xs:complexType name="newPersonalInfoType">
```

```
<xs:complexContent>
```

```
<xs:restriction base="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Mobile" />
```

```
</xs:sequence>
```

```
</xs:restriction>
```

```
</xs:complexContent>
```

```
</xs:complexType>
```

```
<xs:element name="Mobile" type="xs:string" />
```

b.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
```

```
<xs:complexType name="newPersonalInfoType">
```

```
<xs:complexContent>
```

```
<xs:restriction base="personalInfoType">
```

```
<xs:sequence>
```

```
<xs:element ref="Name" />
```

```
<xs:element ref="Date_of_Birth" />
```

```
<xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
```

```
<xs:element ref="Mobile" />
```

```
</xs:sequence>
```

```
</xs:restriction>
</xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```

c.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:extension base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Mobile" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```

d.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:extension base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Name" />
        <xs:element ref="Date_of_Birth" />
        <xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

```
<xs:element ref="Mobile" />
</xs:sequence>
</xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```

Correct answer : c

Question 44

Select which of the following correctly describes the purpose of using XML namespace.

- a. Defines the XML document data structure.
- b. Performs operations on XML Data from the application.
- c. Transforms XML documents to HTML documents.
- d. Avoids having conflicting elements of the same name but different meaning in a single XML document.

Correct answer : d

Question 45

Select which of the following is the correct value for the ATT attribute when the following XML document is

read by an XML processor?

"XML Document"

```
<?xml version="1.0"?>
```

```
<!DOCTYPE config [
```

```
<!ELEMENT config (name, user)>
```

```
<!ELEMENT name (#PCDATA)>
```

```
<!ELEMENT user (#PCDATA)>
```

```
<!ATTLIST config ATT CDATA "FALSE">
```

]>

<config ATT="TRUE">

<name>test.ini</name>

<user>taro</user >

</config>

a. NULL value

b. "TRUE"

c. "FALSE"

d. None of the above; throws an error

Correct answer : b

Question 46

Given "XML Document" below, select the namespace to which the BirthDay element belongs.

"XML Document"

<List xmlns="urn:example:Data"

xmlns:Data01="urn:example:data01">

<Data01:data>

<Name age="30">TaroYamada</Name>

<BirthDay xmlns="">1977-03-19</BirthDay>

</Data01:data>

</List>

a. urn:example:Data

b. urn:example:data01

c. urn:example:Dataurn:example:data01

d. The BirthDay element does not belong to a namespace

Correct answer : d

Question 47

Select the correct description that fits in _____ (1) _____ of “XSLT Stylesheet” to obtain the transformation result “X01-0001X01-0002X01-0003X01-0004” when “XSLT Stylesheet” is applied to the given “XML Document”.

“XML Document”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<ProductList>
```

```
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
```

```
<ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
```

```
<ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
```

```
</ProductList>
```

“XSLT Stylesheet”

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
<xsl:output method="text" />
```

```
<xsl:template match="/">
```

```
<xsl:apply-templates select="ProductList/ProductName" />
```

```
</xsl:template>
```

```
<xsl:template match="ProductName">
```

```
_____ ( 1 ) _____
```

```
</xsl:template>
```

```
</xsl:stylesheet>
```

“Transformation Results”

X01-0001X01-0002X01-0003X01-0004

- a. <xsl:value-of select="ProductList/ProductName/@ProductID" />
- b. <xsl:value-of select="ProductList/ProductName/ProductID" />
- c. <xsl:value-of select="@ProductID" />
- d. <xsl:value-of select="ProductID" />
- e. There is no correct template for outputting Transformation Results

Correct answer : c

Question 48

Select which two of the following are correct with respect to the occurrence of element "a" and a child element defined by the following element type declaration. Assume child elements "w", "x", "y", and "z" are empty elements.

"Element Type Declaration"

<!ELEMENT a ((w | x)+ , (y , z)*)>

a.

<a>
<w/>
<y/>
<z/>

b.

<a>
<w/>
<x/>
<z/>
<y/>

c.

```
<a>  
<x/>  
<y/>  
<z/>  
</a>
```

d.

```
<a>  
<x/>  
<z/>  
<y/>  
</a>
```

Correct answer : a, c

Question 49

Select which of the following is a valid XML document with respect to the external subset DTD file "item.dtd" below.

"item.dtd"

```
<?xml version="1.0" encoding="UTF-8"?>  
<!ELEMENT ProductInformation (ProductName,Price)>  
<!ELEMENT ProductName (#PCDATA)>  
<!ELEMENT Price (#PCDATA)>
```

a.

```
<?xml version="1.0" encoding="UTF-8"?>  
<!DOCTYPE ProductInformation SYSTEM "item.dtd">  
<ProductInformation>
```

<Price/>

</ProductInformation>

b.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName/>

</ProductInformation>

c.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName>

<Price/>

</ProductName>

</ProductInformation>

d.

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE ProductInformation SYSTEM "item.dtd">

<ProductInformation>

<ProductName/>

<Price/>

</ProductInformation>

e.

<?xml version="1.0" encoding="UTF-8"?>

```
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
```

```
<ProductInformation>
```

```
<Price/>
```

```
<ProductName/>
```

```
</ProductInformation>
```

Correct answer : d

Question 50

Select which of the following XML Schema definitions always results in the content of “ProductGenre” being

“Bag”.

a.

```
<xs:element name="ProductGenre"  
type="xs:string" default="Bag" />
```

b.

```
<xs:element name="ProductGenre"  
type="xs:string" fixed="Bag" />
```

c.

```
<xs:element name="ProductGenre"  
type="xs:string" use="Bag" />
```

d.

```
<xs:element name="ProductGenre"  
type="xs:string" optional="Bag" />
```

Correct answer : b

1. How should servlet developers handle the HttpServlet’s service() method when extending HttpServlet?

a. They should override the service() method in most cases.

- b. They should call the service() method from doGet() or doPost()
- c. They should call the service() method from the init() method.
- d. They should override at least one doXXX() method(such as doPost()).

2. Cookie is _____

- a.
- b. Servlet Attribute
- c. A plain text that resides on client machine
- d. An encrypted file sent to the server by client

3. Which statements about disabling scripting elements are true?

- a. You can't disable scripting via the DD.
- b. You can only disable scripting at the application level.
- c. You can disable scripting programmatically by using the isScriptingEnabled page directive attribute.
- d. You can disable scripting via the DD by using the <scripting-invalid> element.

4. Question

a. \${param[0]}

c c a b d d

a d d

c a a d

d b a b

c a b c

b d a c d

a c a c

b c a

a d c b

a b d b

d e b

c b d a

c b c

c b d d

a d b d a

c c d b d

c a c d

b. \${param.[0]}

c. \${param['0']}

d.

5. Singleton is _____

a. Behavioral pattern

b. Creational

c. Structural

d. Integration

6. getInitParameterNames() returns

a. String

b. String[]

c. Enumeration

d. ArrayList

7. Significance of 'errorPage' in page directive?

a. The error in current page leads to errorPage value.

b.

c.

- d.
- 8. Java Beans consists of getter and setter methods. True
- 9. Init() can be overridden. True
- 10. Jsp:param
- 11. Which is best for business logic?
 - a. Servlet
 - b. JSP
 - c. Ajax
 - d. DataBase
- 12. Model 1 architecture is used for large applications. False
- 13. Which of following is true?
 - a. Jsp is independent of servlet code
 - b. Servlet is independent of JSP page
 - c.
 - d.
- 14. What related to sendredirect() is true?
 - a. When response is committed, it causes IllegalAccessException
 - b.
 - c.
 - d.
- 15. Which of the following related to POST are true?
 - a. POST can send unlimited data
 - b. POST cannot send binary data
 - c.
 - d.

16. Eliminate duplicate code... transfer object
17. Construct a pattern of multiple views... Composite view
18. ... View delegate
- 19.
- a. Scriplet
 - b. Expression
 - c. Directive
 - d.
 - e.
20. "When is it not possible to call the sendRedirect() method of response object?
Select one correct answer from the following." 1
- a. After creating a connection to the Database.
 - b. After the response is already committed.
 - c. After iterating through the resultSet object
 - d. After opening an I/O stream
21. For including "text/plain" in jsp directive...
- a. < contentType="text/plain">
22. Listener for HttpSession persists..
- a. HttpSessionBindingListener
 - b. HttpSessionListener
 - c.
 - d.
23. How do you get information about init parameter?
- a. <init-param>blah</init-param>
 - b. ServletContext().getInitParameter();

c.

d.

24. `HttpSession sess=ServletConfig.getSession();`

`Int counter=sess.getAttribute("counter");`

`ServletConfig sc=sess.setAttribute("counter",counter++);`

Check the options?

1)Which is correct?

a)Override `init()` to cleanup db connection

b)Override `init()` to set an `initparam`

c)we can override `init()` but don't override

d)To fetch `initParam` and execute an initial code

2)Singleton is

a. Creational

b. Structural

c. Behavioral

3)How to set a header to response

a. `HTTPServletResponse.setHeader("n","v");`

b. `HTTPServletResponse.setHeader("n");`

c. `HTTPServletResponse.setHeader("v");`

d. Cannot do it

4)JSTL core iteration custom tags(choose 2)

a. Body of tag may contain `ELCODE`,but no scripting code

b. Iteration over arrays, collection, map and tags

c. Iteration over map but only key of object map

d. Mapping may be used in tag body used

e. When looping over collection a loop statement

5) HttpSession s=.....

s.setAttribute("x","xv");

s.invalidate();

res.getWriter().print(s.getAttribute("x"));

output?

a. Value=null

b. illegalStateException

c. InvalidSession

d. Value=xv

6)true(Choose 3)

a. <jsp:include>-static

b. Bad practice to include one JSP:include

c. <%@include %>-static

d. Through JSP include HTML can be included

e. Through JSP include JSP alone can be included

7)Scripting allowed in JSP by default(True/false)

8)Service() How many times called in life?

a. None

b. Once for every req

c. Once

d. None if init() is overridden

9)<taglib>

<taglib-uri>http://mytaglib.com</taglib-uri>

<taglib-loc>http://your.com</taglib-loc>

</taglib>

- a. <taglib-include> to be used instead of <taglib-loc>
- b. Invalid syntax of <taglib-uri>
- c. Malformed xml
- d. The value of <taglib-loc> cannot be an absolute URI

10)Servletconfig comes into picture

- a. After init()
- b. After service()
- c. After constructor
- d. After servlet loaded

11)Servlet gets binary stream for writing an image or other binary type to HttpServletResponse

- a. Getoutputstream()
- b. getBinary Stream()
- c. getwriter()
- d. getPrintWriter()

12)When control transfer from p1.jsp to p2.jsp,the scope of the data in p1.jsp will be available in p2?

- a. Yes
- b. No
- c. Yes but in some conditins no
- d. No but in some conditions yes

13)Business tier denotes (Choose 3)

- a. BusinessDelegate
- b. Session Façade
- c. Transfer Object
- d. Service to worker

e. DAO

14)Servlet life cycle

15)true?

a. JSP alone serves client request

b. None

c. JSP cannot stand alone

d. Servlet request to make JSP more efficient

16)To handle business logic of a web app is in

a. AJAX

b. Servlets

c. DB

d. JSP

17)servlet as main() as entry(T/F)?

18)Jsp active resource

a. Processing capability at server mac

b. Processing capability at client mac

c. Java script along with HTML

d. None

19)Scriptlet code syntax error in which part of JSP life cycle is identified

a. Compilation

b. Translation

c. Execution

d. Container doesnot mind scriptcode syntax error

20)Design pattern—shielding clients from important of business services

a. MVC

- b. MVC2
- c. Business delegate
- d. Transfer object

21)NOT MVC

- a. JSF
- b. Tiles
- c. Struts
- d. SPRING

22)if age=31 ,wht will be the output of \${PARAM AGE ge 25}?

- a. 31
- b. 25
- c. True
- d. 1

23)JSP executed at

- a. client
- b. server
- c. both

24)EL implicit=JSP implicit objects(T/F)

25)Presentation tier pattern?

- a. DAO
- b. FC
- c. Server locator
- d. Session Facade

26)Servlet A calls servlet B of same container but different applications ,now data can be accessed in servlet B through

- a. REQUEST
- b. RESPONSE
- c. CONTAINER
- d. SESSION

1) Not present in Meta-tag

Options: http-equiv, name, value, content

2) Expression language is used to print something on the screen

3) if(" string ".trim()=="string")

s.o.p("equal");

else

s.o.p("not equal");

Ans: not equal

4) override the init() method

5) _jspService

6) isEnclosed : controller

7) iterator has previous() method: false

8) predefined values -: parameterization

9) 1000 users accessing SampleServlet : 1 object will create

10) <@ include file="Header.html">

11) uncaught throwable object Exception

12) Not mandatory ? NullPointerException

13) what are the checked exception ? ClassNotFoundException, InterruptedException

14) parameterized value? prepared statement

15) Apply style to text or part of text ? span

16) Divide page into two rows ? rows 50%50%

17) Divide page into two halves? rows 50%50%,cols 50%50%

18) document.getElementById("p")[0].innerText

19) Code? display method display method 10 10

20) select (2+3*4/2-5) from dual ? 3

21) select count(*) from employee where sal >(select Avg(sal) from Employeee)

22) create or replace proc_name (emp_name varchar2)as
Declare
Cursor c1 is
Select * from Emp
Where e_name=emp_name
Begin
For rec in c1 Loop
d.o.p(rec.e_name.....)
end Loop
end

23) do post-large amount of data

24) user name will be passed to the servlet
Get method

25) attribute? adds behavior of the tag

26)Jsp translated to servlet-> compiled->instantiated

27) person don't want to share the content ? WEB_INF

28) valid variables-Javascript ? _num,num

29) create session ? request.getSession()

30)when a interface is implemented by class and the class is extended by another class,the second class should override all the method in the first class

Ans? All the above

31)Runnable r=new Runnable();

Thread t=new thread(r)

? Compiler error

32) Hardware bench marking? true

33) A. Applet server side application

B. Servlet client side

A and B false

34) 3-tier architecture

*Application server

*Database server

*Web server

35) Real world volums? load testing

36) rapidly varying users? spike testing

37) wrapper class int,short,char in switch ? true

38) transaction response time related to throughput in loadtesting ? true

39) objectiutputstream deserializes the object which was previously serialized by

objectoutputstream? true

40)A. static selerializable

B. traniciant can not be serializable

A.false B.true

41)collection ques

* ordered set of elements with different data types

42) i) PL/SQL declaration part, execution and exception.

II) PL/Sql block can be anonymous or named.

iii) PL/SQL block converted by PL/SQL engine and then it is put to client side or server side

43) Array a = new ArrayList();

a.add(10);

a.add(23);

a.add("abc");

HashSet as = new HashSet();

as.add("abc");

as.add(23);

a.addAll(as);

a.removeAll(as);

System.out.println(a);

Ans: [10]

44. if(((i++)>12)&&(++i<15))

S.O.P(i);

Else

S.O.P(i);

Ans:11

45. Automatically create unique index for the primary key column

46. Garbage collection cannot be forced.

47. Not implemented by RequestDispatcher

Ans: redirect

Dispatch

48. 1 = 32;

Char c = 65;

Char a = i+c;

S.o.p(a);

Ans: a;

1. Long l=50;

Ans: Compile time error(type mismatch)

2. Byte a=10;

Byte b=15;

sop(a+b);

Ans: 25

3. int i=12,j=13,k=0;

k=++i-j--;

sop(i);

sop(j);

sop(k);

Ans: 13

12

0

4. try

{

system.exit(0);

}

finally

{

sop("Hello");

}

Ans: NO output(finally will no execute)

5. which are runtime (checked) exceptions?

- (a). Null pointer exception
- (b). Array index out of bound exception
- (c). File not found exception
- (d). SQL exception
- (e). I/O exception

Ans: a, b

6. Enumeration is having remove method (t/f)?

Ans: False

7. class parent

```
{
protected void disp()
{
sop("Parent class");
}
void base()
{
sop("Hello");
disp();
}
}
class child extends parent
{
protected void disp()
{
```

```
sop("Child class");  
}  
psvmain()  
{  
child c=new child();  
c.base();  
}  
}
```

Ans:Hello

Child class

8. public interface abc

```
{  
/*code*/ int a=10;  
}
```

Ans: public, final, and static

9. public static void main(String[] args)

```
{  
String str =  
"India is a/n developing country."  
StringTokenizer strTok =  
new StringTokenizer(str);  
System.out.println(strTok.countTokens());  
}
```

Ans: 5

10. Which one of the following lines produces error

<%! int a=10;%>Line-1

<% int b=7;%>Line-2

<%=a*b;%>Line-3

Ans: Line-3

11. which is more secure comparing get and post?

Ans: post

12. `sop(10+"20.392");`

Ans: 1020.392

1. Syntax of <c:url>

2. Where library descriptor file stored?

a. META-INF/tlds

b. META-INF/

c. WEB-INF/

d. WEB-INF/tlds

3. True or false $\{8/0\} = \text{infinity}$ —Ans:true

4. <pre:tag1>

<%=name%>

</pre:tag1>

a. jsp

b. Tagdependant

c. Empty

d. Scriptless

5. Your servlet class extends.....

a. HttpServlet

b. Servlet

c. GenericServlet

6. Which implicit object is used unique identifier user....

- a. Request
- b. Response
- c. Application
- d. Session

7. How you can set session timeout for 2 minutes??

Answer:

- a. `<session-timeout>2</session-timeout>`
- b. `Session.setMaxInactiveSession(120);`

8. Which listener is used when session is created??

Answer: `HttpSessionListner`

9. Which listener attribute is used for listerner tag??

Answer: `<listener-class>`

10. Which used for print el `${var}`

Answer : `<c:url value="" ">`

11. Choose the right

Answer : a. `<jsp:include page="">`

b. `<%@ include file="" %>`

12. `<jsp:setproperty>` syntax

13. Jsp lifecycle...

14. Translation and compilation is done at..

- a. Execution
- b. Deployment
- c. Undeployment

d. None of the above

15. Which is used when cookies not used in session management?

Answer: url rewriting not cookies

16. Which is used to extract the values of request parameter address?

Answer: `${param.address}`

17. Feature not contained in container

- a. Servlet life manager
- b. Session management
- c. Application controller
- d. Multithreading support

18. One program of session to display output

19. . You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page.

This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

20. Select two options to retrieve first value in request variable

Answer: `request.getParameter("...")`;

`request.getParameterValues("...")[0]`;

21. How to access the variables fort in variable name using EL

Answer: `${name["fort"]}`

`${name.fort}`

22. Which header is header used to retrieve the info of "User-agent"?

Answer: `response.getHeader("User-Agent")`;

1) `Integer.MAX_VALUE`

true or false

2) EL expressions used for?

3) What is default scope of JSP:useBean or JSP:getProperty?

4) Session timeout is in minutes and programmatically is in Seconds

5) Request dispatchers object

`request`, `include`, `forward`

6) How to store java primitive types in session?

7) `<! x=4;>`

`<% y=4;%>`

Solution is `<%=x*y; %>`

Ans: syntax error at line 3..

1. do get method syntax ..? ans : `doGet (HttpServletRequest request, HttpServletResponse response)`

2. request is the object of ..?

Ans: `HttpServletRequest`

3. EL consider null values as zero..? ans: true //not sure

4. `<%=a=6%>`

<%b=3%>

<%a=5%>

What is the result of <%a*b%> Ans: 15

5.how will u send cookie in response..?

Ans: response.addCookie(new cookie(" ", " "))

6.where is the <servlet-name> element is present in DD.

Ans: in <servlet> tag and in <servlet-mapping> tag

7.which methods can be overridden in JSP..?

Ans: JSPinit(); and JSPdestroy();

8.if servlet class implements single thread model then what will happen..?

Ans: only one thread will run for servlet

9.if session variable s is not in session and \${true and s[0]}...? Ans: false

10.http session session= request.getSession(true);

Session.setAttribute(" ", " ")

setMaxInactiveSession(0);

if(session.is New())

{

-----//getAttribute...

}

Else

{

}

Ans: nothing will display,session will expire.... // not sure

11.

Ans: 1. Session timeout set in DD is in minute..

2. Session timeout set programmatically is in seconds

13. what is the return type of getAttribute method..? ans: object

14. one question was that there were two custom tags Tag1 and Tag2 (which is extending from Tag1) of which Body content should not be empty. They have asked how we can implement these tags in our code and they have given options of different possibilities.

Ans: // Not sure just go through it once

<tag1>

<tag2>

Addsgada

</tag2>

</tag1>

15. The question is on how to set init param value=10 of a using <jsp:setProperty> ?

They have given different combination, go through syntax of <jsp:setProperty>.

16. What is the default scope of useBean?

Ans: Page // not sure

17. Go through the syntax of <jsp:setProperty>, <jsp:getProperty> and useBean?

18. Syntax of import file.... E.g <%@ page import="java.util.*, java.awt.*"%>

19. what we use for conditional check in <c:>

a. Cond

b. test

c. check

d. choose / // may be this was option

I don't remember the complete question but Conditional check in <c:if> or <c:choose> etc....

20. question: Which are true [choose any two]

Ans: a. ServletConfig is one per Servlet

B. ServletContext IS ONE PER APPLICATION

21. Which argument we pass to Servlet Init method?

Ans: ServletConfig

1. Without cookies? -Url writing.. manual/automatic?

2. implicit objects -application, exception, PageContext

3. ServletConfig- One per Servlet, ServletContext one per application

5. Choose the right

<jsp:include page="">

b. <%@ include file="" %>

7. You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page. This is configured as a context parameter in the deployment descriptor:

<context-param>

<param-name>footerEmail</param-name>

<param-value>joe@estates-r-us.biz</param-value>

</context-param>

Which EL code snippet will insert this context parameter into the footer?

Contact me

Contact me

Contact me

Contact me

Contact me

Answer: C

8. How to store java primitive types in session? longattribute

9. Select two options to retrieve first value in request variable

`request.getParameter(" .");`

`Request.getParameterValues(" ..")[0];`

20. client req depends on only jsp/only servlet/both

21. if information is forwarded from one page to other..can v access all the info

22. import option is used to import html/java pkg or class/jsp page/any of the options

23. some ques ans is implementing the singlethread interface

24. to start a servlet we need- listener

23. Where library descriptor file stored?

e. META-INF/tlds

f. META-INF/

g. WEB-INF/

h. WEB-INF/tlds

24. True or false $\{8/0\} = \text{infinity}$ —Ans: true

25. `<pre:tag1>`

`<%=name%>`

`</pre:tag1>`

e. jsp

f. Tagdependant

g. Empty

h. Scriptless

26. Your servlet class extends.....

d. HttpServlet

e. Servlet

f. GenericServlet

27. Which implicit object is used unique identifier user....

- e. Request
- f. Response
- g. Application
- h. Session

28. How you can set session timeout for 2 minutes??

Answer:

- c. `<session-timeout>2</session-timeout>`
- d. `Session.setMaxInactiveSession(120);`

29. Which listener is used when session is created??

Answer: `HttpSessionListner`

30. Which listener attribute is used for listerner tag??

Answer: `<listener-class>`

31. Which used for print el `${var}`

Answer : `<c:url value=" " >`

32. Choose the right

Answer : a. `<jsp:include page="">`

b. `<%@ include file="" %>`

33. `<jsp:setproperty>` syntax

34. Jsp lifecycle...

35. Translation and compilation is done at..

- e. Execution
- f. Deployment
- g. Undeployment
- h. None of the above

36. Which is used when cookies not used in session management?

Answer: url rewriting not cookies

37. Which is used to extract the values of request parameter address?

Answer: `${param.address}`

38. Feature not contained in container

e. Servlet life manager

f. Session management

g. Application controller

h. Multithreading support

39. . You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page.

This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

40. Select two options to retrieve first value in request variable

Answer: `request.getParameter(" ...")`;

Request.getParameterValues("..")[0];

41. How to access the variables fort in variable name using EL

Answer: `${name["fort"]}`

`${name.fort}`

42. Which header is header used to retrieve the info of "User-agent"?

Answer: `response.getHeader("User-Agent");`

1) `8/0=infinity`

5) Request dispatchers object

`request, include, forward`

7) `<! x=4;>`

`<% y=4;%>`

Solution is `<%=x*y; %>`

Ans: syntax error at line 3..

1. Which collection class allows you to access its elements by associating a key with an element's value, and provides synchronization?

a. `java.util.SortedMap`

b. `java.util.TreeSet`

c. `java.util.Hashtable`

d. None

Ans---c

2. Suppose that you would like to create an instance of a new Map that has an iteration order that is the same as the iteration order of an existing instance of a Map. Which concrete implementation of the Map interface should be used for the new instance?

a. `TreeMap`

- b. HashMap
- c. LinkedHashMap
- d. The answer depends on the implementation of the existing instance.

Ans ----c

3. Which loop automatically iterates over the specified object and reads values one-by-one ?

- a. For
- b. For Each
- c. Iterator
- d. ListIterator

Ans ----d

4. Which of the following can be used only with List?

(Choose more than one)

- a. For
- b. For Each
- c. Iterator
- d. ListIterator

Ans ---d,a

5. Which of the following are Iterator Interface methods?

- a. hasNext()
- b. remove()
- c. nextToken()
- d. next()
- e. hasMoreElements()

ans ----a,b,d

6. Which class does not override the equals() and hashCode() methods, inheriting them directly from class Object?

- a. java.lang.String
- b. java.lang.Double
- c. java.lang.StringBuffer
- d. java.lang.Character

ans --c

7. Which of the following can be used to traverse the list in either direction, modify the list during iteration and obtain the iterator's current position in the list

- a. For
- b. Iterator
- c. For Each
- d. ListIterator

Ans ---d

8. Which of the following can read elements by specifying the index using the get() method

- a. For
- b. Iterator
- c. For Each
- d. ListIterator

Ans ----a

9. A collection is a container that groups multiple elements into multiple units

- a. True

b. False

Ans ----b

10. Choose the correct description of method keyset()

- a. Returns a set with all keys contained in the map
- b. Returns a collection with all the values contained in this map
- c. Returns a set view of the mappings contained in this map
- d. Returns a collection with all the values contained in this map

Ans ----a

11. Which of the following is Thread Safe ?

- a. Hash Table
- b. Hash Map
- c. Tree Map
- d. None

Ans----a

12. Which map interface stores the values in sorted order according to key

- a. Hash Map
- b. Hash Table
- c. Tree Map
- d. None

Ans ---c

13. Which collection class allows you to grow or shrink its size and provides indexed access to its elements, but whose methods are not synchronized?

- a. java.util.HashSet
- b. java.util.LinkedHashSet

- c. java.util.List
- d. java.util.ArrayList

ans ---d

14. Which interface does java.util.Hashtable implement?

- a. Java.util.Map
- b. Java.util.List
- c. Java.util.HashTable
- d. Java.util.Collection

Ans----a

15. Which interface provides the capability to store objects using a keyvalue pair?

- a. java.util.Map
- b. Java.util.Set
- c. Java.util.List
- d. Java.util.Collection

Ans-----a

16. What will be the output of the program?

```
import java.util.*;
class I
{
    public static void main (String[] args)
    {
        Object i = new ArrayList().iterator();
        System.out.print((i instanceof List)+",");
        System.out.print((i instanceof Iterator)+",");
    }
}
```

```
System.out.print(i instanceof ListIterator);  
}  
}
```

- a. Prints: false, false, false
- b. Prints: false, false, true
- c. Prints: false, true, false
- d. Prints: false, true, true

Ans-----c

17.

```
public class Test  
{  
    private static float[] f = new float[2];  
    public static void main (String[] args)  
    {  
        System.out.println("f[0] = " + f[0]);  
    }  
}
```

- a. f[0] = 0
- b. f[0] = 0.0
- c. compile time error
- d. run time error

ans ---b

18. What will be the output of the program?

```
TreeSet map = new TreeSet();  
map.add("one");
```

```

map.add("two");
map.add("three");
map.add("four");
map.add("one");
Iterator it = map.iterator();
while (it.hasNext() )
{
    System.out.print(it.next() + " ");
}

```

- a. one two three four
- b. four three two one
- c. four one three two
- d. one two three four one

Ans---c

19. What will be the output of the program?

```

import java.util.*;
class H
{
    public static void main (String[] args)
    {
        Object x = new Vector().elements();
        System.out.print((x instanceof Enumeration)+" ");
        System.out.print((x instanceof Iterator)+" ");
        System.out.print(x instanceof ListIterator);
    }
}

```

```
}
```

a. Prints: false,false,false

b. Prints: false,false,true

c. Prints: false,true,false

d. Prints: true,false,false

Ans-----d

20 .Which two statements are true about comparing two instances of the same class, given that the equals() and hashCode() methods have been properly overridden?

1. If the equals() method returns true, the hashCode() comparison == must return true.

2. If the equals() method returns false, the hashCode() comparison != must return true.

3. If the hashCode() comparison == returns true, the equals() method must return true.

4. If the hashCode() comparison == returns true, the equals() method might return true.

a.1 and 4 b.2 and 3

c.3 and 4 d.1 and 3

21.What will be the output of the program?

```
public class Test
```

```
{
```

```
private static int[] x;
```

```
public static void main(String[] args)
```

```
{
```

```
System.out.println(x[0]);  
}  
}
```

a.0

b.null

c.Compile Error

d.NullPointerException at runtime

Ans-----d

22. You need to store elements in a collection that guarantees that no duplicates are stored and all elements can be accessed in natural order. Which interface provides that capability?

a.java.util.Map b.java.util.Set

c.java.util.List d.java.util.Collection

Ans-----b

23. Which collection class allows you to associate its elements with key values, and allows you to retrieve objects in FIFO (first-in, first-out) sequence?

a.java.util.ArrayList b.java.util.LinkedHashMap

c.java.util.HashMap d.java.util.TreeMap

Ans-----b

24. Which is valid declaration of a float?

a.float f = 1F; b.float f = 1.0;

c.float f = "1"; d.float f = 1.0d;

Ans -----a

25.

/* Missing Statement ? */


```

public class foo
{
public static void main(String[]args)throws Exception
{
java.io.PrintWriter out = new java.io.PrintWriter();
new java.io.OutputStreamWriter(System.out,true);
out.println("Hello");
}
}

```

What line of code should replace the missing statement to make this program compile?

- a. No statement required.
- b. import java.io.*;
- c. include java.io.*;
- d..import java.io.PrintWriter;

Ans -----a

26. The Collection interface is the base interface for _____

- a. Set
- b. List
- c. ArrayList
- d. Linked List
- e. Map

ans---- a,b,e

27. The Map is the base interface for _____.

- a. TreeMap

- b. HashMap
- c. LinkedHashMap
- d. ArrayList
- e. LinkedList

ans ----a,b

28. Which of the following statements are true?

- a. The Collection interface is the root interface for manipulating a collection of objects.
- b. The Collection interface provides the basic operations for adding and removing elements in a collection.
- c. The AbstractCollection class is a convenience class that provides partial implementation for the Collection interface.
- d. Some of the methods in the Collection interface cannot be implemented in the concrete subclass. In this case, the method would throw `java.lang.UnsupportedOperationException`, a subclass of `RuntimeException`.
- e. All interfaces and classes in the Collections framework are declared using generic type in JDK 1.5.
- f. All the above

ans -----f

29. Which of the following data types does not implement the Collection interface?

- a. HashSet
- b. TreeSet
- c. ArrayList
- d. LinkedList

e. Map

ans ----e

30.If two objects o1 and o2 are equal, what are the values for o1.equals(o2) and o1.hashCode() == o2.hashCode()?

a. true true

b.true false

c.false true

d.false false

1. Art of organizing, controlling and revising the developers module is –SCM

2. Error and Exception is a subclass- Throwable

3. Valid xml descriptors-sql,formatter,core

4. JDBC connection what are the classes- java.sql,javax.sql

5. Importing a tag library file in jsp- <@taglib>

6. To correct a scenario Serializable.

7. Scenario on Jsp include-<@include>

8. Interface can have only –public,static,final and not private,native

9. Declaration tag should be <%! % >

10. Parser without modifying the content is –SAX parser

11. XML can be transformed by – check it later

12. How call a servlet from a form- action=path of servlet/servletname

13. Int i=1;

If(i>0)

I=3;

Switch(i){

Case 1:

Case 2:

Case 0:

Break;

Case 3: s.op.(3);

Default: s.o.p(4)

Break;

Ans-3,4

14. 1.Jsp is text file with static and jsptage

2.Jsp is for presentation logic and servlet for BO- both are true

15. 1.Tld is a xml with description of entire library and tags

2. didn't remember – both are true

16. There should be atleast one element –ans:<!Element elemen(elment-content+)>

17. Request object is implicit in- ans:HttpServletRequest

18. HttpSession implicit object in jsp- ans: session

19. where to declare a object to use in entire session-ans: session.setAttribute()

20. how to remove a attribute-ans: removeAttribute(String name)

21. In Expression language, how get a parameter name userId: ans-\${param.userId}

22. int i=10;

If(((i++)>12)&&(++i<15)){

s.o.p(i);

elses.o.p(i);

ans-11

23. Best practices for Collection- use addAll() for copying, use generic types

24. Return type of Iterator's next() method is – Object

25. Performing specific styles on set of page elements is done by-Div

26. scenario for updating customer phone,address- create a view
27. when updating view should reflect into original db automatically- trigger
28. What are filter attributes are-<init>,<filter-class>,<context>,<config>,<name>ans: don't know
29. how to call a stored procedure of oracle database by JDBC - ans: callable Statement
30. what are not attributes of meta tag- htt-equiv,value,name,content- ans: value
31. (Scenario) what exception raised when number divided by zero: ans: divide zero exception(none of above)
32. Need of alt attribute in img tag- ans: if image is not displayed alt tag value will get displayed
33. Varray(1,2,3,4,5,6,7)
34. which are synchronized- Hasttable,hashmap,arraylist,vector-ans: Hash table,vector
35. Pl/Sql –ans: plsql block can be anonymous&named, plsql block have declare&begin&exception
36. tools used for testing – ans: Junit,emma
37. Rais_application_error- ans: complies correctly
38. Can we use select statement with max, min in updatebefore trigger- ans: trigger fails.
39. <%!java.util.Date date=new DATE() %>
<%=date.getHours()%>: <%=date.getMinute()%>:<%=date.getSeconds()%>
Ans: time in hh:mm:ss format
40. how use variable all servlets&jsp pages- ans: getServletContext().setAttribute(),
request.getSession().setAttribute()
41. In xml how to specify the attribute order- ans: <xs:sequence>
42. In outer joins result will include all rows of first table and not second tables rows which fails
condition- ans: true
43. Join performce better than sub-query- ans: true;
44. HttpServletRequest is sub interface of- ServletRequest
46. super class a protected method and child class overriding the method, what should be the access

specifier- ans: protected or default.

47. Valid package name-ans: com.org.example, home_test, pack123

27- <p:data>

<%=new Date()%>

<p:data/>

What is the body of the custom tag?

a) Scriptless b) expression language c) JSP

34-. Byte b1=1, Byte b2=2, System.out.println(b1+b2)?

Ans:3

35. package ke bare me kuchh statement honge aur tumhe 2 ya 3 select krne ha.

Ans: package is logical collection of cls

36. if(" string ".trim.equals(string)) kuch bhi rhega to to output else condition wala hoga

37. bufferwriter can be used to read filewriter? ans -true

38. for data security v use with method of servlet? ans- post

39. . how to implement method of a abstract cls? ans- method should be defined with public or same access modifier as in abstract cls.

39. return type next() api of iterator? ans-object.

40. join, notify, notifyall should use? ans-unsynchronized method of thread cls.

41. how to destroy session? ans- session.invalidate().

42. class name should be? ans- simple n descriptive.

43. when translation n compilation method in jsp is called? ans- during deployment.

44. filter object consist of? ans- filter class and description name

45. study the syntax of complex type element in xml. (In 1st ppt of xml)

46. in collection, synchronized cls r? ans- vector n hashtable.

47. there r three element in list, we set an element at position 1 then how to access 3rd element of list?

Ans: list(position of new element+1)

48. how to create object in xml? ans- sax

49. for gd practice v use which ? ans- cpd, pmd.

51. a web page hai jisme 1000 user access kar rhe hai to kitne servlet object banenge? ans- 1

52. ek table me 2000 columns hai, kuchh user ise access karke modify krna chahte hai par sabhi ko access nhi hoga? ans- create index.

53. ek web application bnaya to iska deployment descriptor ka nam kya hoga? ans- web.xml

54. XSL ka full form. Ans: Extensible style sheet language.

55. jsp me servlet context ke equivalent hai? ans-application.

56. wht is generic n servlet? ans- servlet is interface n generic is cls which implements servlet.

57. how to include a file in jsp? ans-import.

59. in jdbc, wht v have to enter data for output? ans-preparedStatement.

60. wht is use of filter? ans- security n chking request n response.

61. collection ke bare me optio select krna tha? ans- sabhi sahi the, option yad nhi hai.
aur ques programming tha inheritance, thread aur exception handling se.

trigger, plsql procedure ka syntax dekh lena

62. how to get element of tag in html page through a java script.

Ans: document.getElementsByTagName("p")

63. **public class** practice {

```

public static void main(String[] args) {
    try{
        System.out.println("A");
        System.exit();
    }catch(Exception e){
    }
    System.out.println("C");
}
}

```

Ans: A

```

63. public class practice {
    public static void main(String[] args) {
        char c='a';
        char cl=c+27; //error
        System.out.println(cl);
    }
}

```

Ans: output- compile time error.

```

64. public class practice {
    public void show(){
        System.out.println("super");
    }
}
class child extends practice{
    public void show(){
        System.out.println("child");
    }
}
public static void main(String[] args){
    super.show(); //error
}
}

```

Ans: compilation error.

65)a field in interface is by default->public,static,final

66) drop table will keep the table in recycle bin and can be recovered --true

67)Purge command will permanently delete the table—true

68. .ROW LEVEL trigger-for each statement

69. image alt attribute –displays text if image is not there

70. Exception and error is super class of Throwable

71. send message to error page- request

72. tools for testing the code- PMD, CPD, ANT

73.option: doFilter()

74. . If there are more than one text box with the same name in a form, then how will you retrieve the first value of the text box? (choose all possible options)

- a. request.getParameter("textBoxName");
- b. request.getParameterValues("textBoxName")[0];
- c. request.getHeader("textBoxName");
- d. request.getAttribute("textBoxName");

75.

Which HTTP methods are used to show the client what the server is receiving?

- a. GET
- b. PUT
- c. TRACE

d. OPTIONS

76. Assume a class named Employee which has a property called "empId" which is of type int. "employee" is an attribute instance of Employee. Which of the following are legal ways of setting the empId field to Also assume that there is a parameter called "empId" with the value 10 available to the jsp as a request parameter?

- a. <jsp:setProperty name="employee" property="empId"/>
- b. <jsp:setProperty property="empId" value="10"/>
- c. <jsp:setProperty name="employee" property="*/>
- d. <jsp:setProperty name="employee" property="empId" param="empId"/>

77. How will you retrieve the first value of request parameter "fname"? (Choose all options that apply)

- a. \${param.fname}
- b. \${requestParams.fname}
- c. \${requestScope.fname}
- d. \${paramValues.fname[0]}

78. POST method is considered to be idempotent method (state true/false)

- c. True
- d. False

79. . In Expression Language \${8 / 0} – displays Infinity (state true/false)

- a. True
- b. False

80. <pref:tag1>

<%= result %>

</pref:tag1>

80. Which of the following are valid for the <body-content> tag of tag1?

- a. JSP
- b. empty
- c. scriptless
- d. tag dependant

81. Which of the following EL implicit objects is not a Map?

- a. requestScope
- b. initParam
- c. headerValues
- d. pageContext

82. . How will you access a servlet context initialization parameter named "company-name"?

- a. \${init.company-name}
- b. \${init['company-name']}
- c. \${initParam["company-name"]}
- d. \${contextParam.company-name}

83. Which of the following are JSP implicit objects?

- a. pageContext
- b. application
- c. requestScope
- d. exception

84. Which of the following are valid?

- a. <jsp:include page="Header.jsp"/>
- b. <jsp:include file="Header.jsp"/>
- c. <%@include file="Header.jsp"%>
- d. <%@include page="Header.jsp"%>

85. Can we use try block inside catch block.-yes

86. .DTD-Document Type Def.

87. content read inside the first paragraph tag

Var content=document.getElementsByTagName("p")[0].innerText

88.what is return type of getWriter()

Printwriter out=response.getWriter();

Out

89. Default method-get

90.Which carries bulk data –Post method

91. Why versioning is used in s/w development ??

Options-1.WinZip 2.Branching n merging 3.Formatting 4.Recovery of data

92. When Scriptlet executes then every time call goes to JSP(True/False)?true

93. Select (3*2) from dual

Ans-6

94. Method to override comparable interface

a.compareTo

b.comarable

c.comapre

d.compare with

95. Where do you find config class.?

Ans-javax.servlet.servletConfig

96.Are there any datatypes in java script?

Ans-No..(only var)

97.How do you store objet to the disk storage?

Ans-Using serialization

98.What will be the output

Class Abc

{

Psvm()

{

int i=10;

if((i++<12) && (++i<15))

{

Sysout(i);

}

Else

{

Sysout(i)

}

}

Ans-12;

99.Select checked exceptions

Ans-1.Interepted Exception

2.ClassNotFoundException

100. send message to error page- request

101.reading the object from disk (ObjectInputStream) deserialization

102; writing the object to disk (ObjectOutputStream) serialization

103. GOOGLBOT – page should not be archived

104. static variables can be serialized and transient variables can not be serialized true

105.) bank question - locking system ans: synchronization

106. coding standard checking using pmd and cpd

107. Can send large amount of information via POST method yes

108) In MVC presentation logic is done in view

109) change RAISE_APPLICATION_ERROR to RAISE_APPLICATIONS_ERROR

110. <%int b=6;%>
<%=a*b;%>
Ans: Error at line 3

111) Varray question
VArray ar={1,2,3,4,5,6}
While (x<v.last) loop out.print()
Ans: compilation at line 3

112) x=1;
If (x>0)
X=3; switch(x){case 1 ...}
Ans: 3,4

113. to import custom tags Taglib directive is used

114> Protected abstract void method_name ()-----> can be implemented in sub class with public or protected mode

115)
<%! Int a=6; %>
<% Int b=6; %>
<% =a*b; %>
Ans: --error in 3rd line because of ;

116)
a) static variable can be serialized
b) transient variable can't be serialized.
Which statements are true:
True, true.

117) ATM machine scenario -> thread synchronization

118) in threads synchronized methods are always better than synchronized code

119) Which of the following attributes of page directive are invalid?
a. isELIgnored
b. session
c. language
d. isScriptingEnabled

120. what can be used to include one or more html file/pageframeset

121. garbage collection is daemon thread true

122. Which of the following are JSP implicit objects?
a. pageContext
b. application
c. requestScope

d. exception
123.multiple viewview delegate
124.decouplebusiness delegate,business application

Questions

1.advantage of branching
2.cursor syntax

.....
.....

1. You are developing dynamic web application using JSP. Which attribute of page directive specifies the list of classes imported in the JSP file?

Select one:

a.session
b.extends
c.import****
d.language

2. Consider the following statements:

Statement A: The PreparedStatement object enables you to execute parameterized queries.

Statement B: The SQL query can use the placeholders which are replaced by the INPUT parameters at runtime.

Which of the following option is True with respect to the above statements?

Select one:

a.Statement A is True and Statement B is False.
b. Statement A is False and Statement B is True.
c.Both Statements A and B are False.
d.Both Statement A and Statement B are True.****

3. DIV tag creates linebreaks similar to paragraph tags

State True or False:

Answer:'True'

4. What is the syntax of Expression Language in a JSP page?

Select one:

a.\${"expr"}

b.#{expr}

c.\${expr}****

d.\$[expr]

5. Which of the following keywords ensure that a method cannot be overridden?

Select one:

a.protected

- b.static
- c.abstract
- d.final****

6. What will be the output for following code?

```
public class Compare
{
    public static void main(String[] args)
    {
        String s=new String("abc");
        String s1=new String("abc");
        System.out.println(s.compareTo(s1));
    }
}
```

Select one:

- a.True
- b.False
- c.None of the listed options
- d.Zero("0")****

7. When comparable interface is used which method should be overridden?

Select one:

- a.compareTo****
- b.comparator
- c.compareWith

d.compare

8.Request implicit object is which of the following type?

Select one:

a.HttpServletRequest****

b.HttpRequest

c.ServletRequest

d.ServletHttpRequest

9."Variables in Java Script should be declared with data types".

False

10.What will be the output of the following code snippet?

```
<% page language="java"%>
```

```
<html>
```

```
<head></head>
```

```
<body>
```

```
<%java.util.Date.now=new java.util.Date();%>
```

```
<H1><%=now.getHours()%>;<%=now.getMinutes()%>;<%=now.getSeconds()%
```

```
></H1>
```

```
</body>
```

```
</html>
```

Select one:

a.It will display the date and time.

b.It will display the date as mm:dd:yy.

c.It will display the current time as hh:mm:ss.****

d.It will display the time as hh/mm/ss.

11.Consider Vijay is developing a web page using HTML.Which method he can use for sending large amount of data on submitting the form?

I.POST

II.GET

Select one:

a.II

b.both I & II

c.None of the listed options

d.I****

12.Whenever a request goes from client to server some additional information other than the request is also passed to the server.This additional information is in the form of a_____.

Select one:

a.application ID

b.Session ID****

c.header

d.footer

14.Which of the following is not an attribute of meta tag?

Select one:

a.name

b.value****

c.http-equiv

d.content

15. Which of the following variable represents the uncaught throwable object that resulted from a call to the error page?

Select one:

- a. Exception****
- b. Request
- c. Application
- d. Config

16. Under which two circumstances do you design database triggers?

Select one or more:

- a. To guarantee that when a specific operation is performed, related actions are performed
- b. For centralized, global operations that should be fired for the triggering statement, regardless of which user or application issues the statement.****
- c. To replicate built-in constraints in the Oracle server such as primary key and foreign key.****
- d. To duplicate the functionality of other triggers.

17. What will be the output for following code?

```
Import.java.util.*;  
public static StringTokens  
{  
public static void main(String[] args)  
{  
String s="India is a\n developing country";  
StringTokenizer o=new StringTokenizer(s);
```



```
System.out.println(o.countTokens());  
}  
}
```

Select one:

- a. None of the listed options
- b. 5****
- c. 4
- d. 6

18. What will be the output of following code?

```
try  
{  
System.out.println("Executing try");  
}  
System.out.println("After try");  
catch(Exception ex)  
{  
System.out.println("Executing catch");  
}
```

Select one:

- a. Executing try Runtime Exception
- b. runtime Exception
- c. Executing try After try Executing catch
- d. Compile Time Execution****

19. Given a filter class definition with this method:

```
21. public void doFilter(ServletRequest request,  
22. ServletResponse response,  
23. FilterChain chain)  
24. throws ServletException, IOException {  
25. //Insert code here  
}
```

Which should you insert at line 25 to properly invoke the next filter in the chain, or the target servlet if there are no more filters?

Select one:

- a. request.forward(request, response);
- b. request.doFilter(request, response);
- c. chain.doFilter(request, response);****
- d. chain.forward(request, response);

20. A filter configuration object used by a servlet container to pass information to a filter during initialization.

True

21. Consider you are developing shopping cart application you have to store details of items purchased by the each customer in intermediate memory before storing purchase details in actual database permanently note that number of different items purchased by customer is not definite it may vary. How do you implement given requirement using java considering best performance of the application?

Select one:

- a. None of the listed options
- b. Implement using file API's

c.Implement using Collection API's****

d.Implement using Arrays

22.What is the use of Attributes in HTML tags?

Select one:

a.Attribute is a type of tag

b.None of the listed options

c.Provides additional behaviour to the tag****

d.Which represents the content to be displayed in the page

23.In which of these following getAttribute() and setAttribute() method has defined?

Select one or more:

a.HttpSession****

b.ServletResponse

c.HttpListener

d.ServletRequest****

24.XYZ company database has Customer personal information View table using which customer can update their personal information like address,phone number fields when user updates address and phone number fields in the view table. We need to take care of updating address and phone number field in underlying database base table automatically . what right solution do you suggest to implement this requirement?

Select one:

a.Implement using triggers****

b.Implement using Stored Procedures

c.Implement using Cursors

d.Implement using functions

25.Which of the following options represents the presentation logic to provide the data of model in the MVC design pattern?

Select one:

a.View****

b.Model

c.Controller

d.Connector

26.In thread implementation making method synchronized is always better in order to increase application performance rather than using synchronize block to synchronize certain block of statements written in java inside the method.

True.

27.Which of the following code line destroys the session?

Select one:

a.session.isNew(false)

b.session.isAlive=false

c.session.removeSession()

d.session.invalidate()****

29.What will be the output of the below query?

Select instr('My SQL World','a') from dual;

Select one:

a.Prints 14

b.Prints -1

c.Prints 6

d.prints 0****

e.Query contains error

30.what is the correct syntax of declaration which defines the XML version?

Select one:

a.<?xml version="1.0"?>****

b.<xml version="1.0"/>

c.None of the listed options

d.<?xml version="1.0"/>

1) XYZ Company database tables are accessed by several users but few users want to do positional row updates or deletes operation on database tables based on business requirement.What will the right solution you will implement in such scenario?

ANS: Use Cursors

2) How to divide the page into two rows when we are using frameset?

ANS: By using rows=50%,50%

3) Which statements are true?

ANS: *If a piece of code is capable of deadlocking, you cannot eliminate the possibility of deadlocking by inserting invocations of Thread.yield()

*It is possible for more than two threads to deadlock at once.

*The JVM implementation guarantees that multiple threads cannot enter into a deadlocked state

4) When one method is overridden in subclass the access specifier of the method in subclass should be equal as method in super calss.

ANS: FALSE

5) Which attribute of the page directive indicates that the JSP engine can handle more than one request at a time when its value is set to true?

ANS: IsThreadSafe

6) Select the advantages of using coding conventions in java application development

ANS: * Improves Easy Understanding

* Improves Easy Maintenance

* Improves Readability of Software

7) A web application developed for an institution requires insertion of a header file comprising the logo and institution name. Identify the correct JSP tag from the options given below to add the logo and institution to all the pages of the web application

ANS: <% @ include file="Header.html"%>

8) Statement A: Index by table is also known as associative arrays. It lets you to look up elements using arbitrary numbers and strings for subscript values.

Statement B: Nested tables hold an arbitrary number of elements. They use sequential numbers as subscripts.

ANS: Both statements A and B are FALSE

9) select e.employee_id,e.last_name,e.department_id,d.department_name from emp e,department d where e.department_id=d.department_id;

In the statement, which capabilities of a select statement are performed?

ANS: Selection,Projection,Join

10) public class MethodSigExample{

public int test(String s,int i) {

int x=i+s.length();

```
return x;  
}  
}
```

During refactoring method signature can be changed using the option?

ANS: Refactor > Change Method Signature

11) As per Java, class names should be nouns, in mixed case with the first letter of each internal word capitalized. Try to keep your class names simple and descriptive.

ANS: TRUE

12) Try can be followed with either catch or finally.

ANS: TRUE

13) Which method removes the attribute with the given name from the ServletContext interface?

ANS: void removeAttribute(String name)

14) TagSupport and BodyTagSupport classes are present in which package?

ANS: javax.servlet.jsp.tagext

15) How to drop all tables from recycle bin?

ANS: PURGE RECYCLEBIN

16) XYZ company database has SALES table which captures all department sales information. You have been asked to create department wise summarized total sales report from SALES table. Which of the options will fetch you meaningful result?

ANS: Use Aggregate function along with GROUP BY clause in query to retrieve result

17) InputStream is the class used for stream of characters

ANS: TRUE

18) You are developing a trigger which should ensure that no negative value is inserted in employee table's Age column. You have created the trigger as follows:

create or replace trigger AgeVerify

before insert

on employee for each row

when(new.EmpAge<0)

begin

RAISE_APPLICATION_ERROR(-20000,'no negative age allowed');

end;

/

Identify error if any in above trigger and give the solution

ANS: Replacing RAISE_APPLICATION_ERROR(-20000;'no negative age allows'); to RAISE_APPLICATION_ERROR(-20000,"no negative age allowed"); will give the desired output

19) How can you force garbage collection of an object?

ANS: Call Runtime.gc()

20) Which parser reads small chunk of document at a time, parses it, generate an events and then reads another chunk of document?

ANS: SAX

21) Which complex type signifies that only one of the child elements can appear?

ANS: <xs:complexType name="CountInfo"><xs:sequence><xs:element name="countryName" type="xs:string"/><xs:element name="states" type="xs:integer"/></xs:sequence></xs:complexType>

22) Select the benefits of versioning the software in java application development?

ANS: * Formatting

* Backup and Restore

* Synchronization

23) Consider you are developing a JDBC application, where you have to retrieve Employee table schema information like table columns name, columns field length and data type etc., Which API you will use to retrieve table schema information?

ANS: ResultSetMetaData

24) What will be the output of following code?

```
public class While{  
    static int i;  
    public static void main(String[] args){  
        System.out.println(i);  
        while(i<=5){  
            i++;  
        }  
        System.out.println(i);  
    }  
}
```

ANS: 0,6

25) <pref:tag1>

<%= result %>

</pref:tag1>

Which of the following are valid for the <body-content> tag of tag1?

ANS: scriptless

26) Which of the following is the deployment descriptor file of a web application?

Assuming that the name of the web application is BankApp

ANS: web.xml

27) Which statement creates DocumentBuilderFactory instance?

ANS: DocumentBuilderFactory f=DocumentBuilderFactory.newInstance();

28) What will be the output of the following Java Script code when the button is clicked?

```
<body>
<script type="text/javascript">
function displayMessage(){
document.write("Displaying message by using javaScript");
}
</script>
<button type="button" onclick="DISPLAYMESSAGE()"Display
Message</button>
</body>
```

ANS: It will print the message "Displaying message by using javaScript"

1. Which statement is true about Java Server Pages?

a. Platform independent.

b. HTML files with special tags that contain java source code to generate dynamic content.

c. All of the listed options.

d. Used to build dynamic web pages.

2. Consider the following statements

Statement A: When tags are implemented with tag handlers written in Java, each tag in the library must be declared in the TLD with a tag element.

Statement B: The tag element contains the tag name, the class of its tag handler, information on the tag's attributes and information on the variables created by the tag.

Which of the following is true about these statements?

a. Statement A is false and statement B is true.

b. Statement A is true and statement B is true.

c. Statement A is false and statement B is false.

d. Statement A is true and statement B is false.

3. An ObjectOutputStream deserializes objects previously written using an ObjectOutputStream. State true or false.

a. True.

b. False.

4. Consider Vijay is developing web pages using HTML. Which method he can use for sending data security on submitting the form?

I. POST.

II. GET.

a. II.

b. I.

c. Both I & II.

d. None of the listed options.

5. Which tool verifies for best practice adherence?

Select one or more.

a. ANT.

b. PMD

c. Check Style.

d. CPD.

6. A container does not initialize the servlets as soon as it starts up, it initializes a servlet when it receives a request for that servlet first time. This is called lazy loading.

State true or false.

Select one

a. True.

b. False.

7. How to divide the page into two equal halves when we are using frameset?

Select one or more

a. By using cols=50%,50%.

b. By using colspan.

c. By using rows=50%,50%.

d. By using rowspan.

8. Which of the following is valid declaration in JSP using declaration tag?

a. < %! String name="Rocky"; %>

b. <%= public String name="Anand"; %>

c. <!% String name = "Rocky" %>

d. <%@ String name ="Anand" %>

9. How do you declare a tag library within a JSP page to use custom tags

a. By using unique variable.

b. By using scriptlet.

c. By using taglib directive.

d. By using path to the tag handler.

10. What is the syntax of expression Language in a JSP Page?

a. \${"expr"}

b. #{expr}

c. \${expr}

d. \${expr}

11. Sam is writing a web application program. He has implemented ServletContextListener interface he should use to perform startup activities for web application?

a. Start().

b. initiateContext().

c. Contextinitialized().

d. Init().

12. Consider you are developing a JDBC application, where you have to retrieve quarterly report from database by executing database store procedure created by database developer. Which statement API you will use to execute store procedure and retrieve ResultSet Information?

a. CallableStatement.

b. PreparedStatement.

c. Statement.

d. None of the listed options.

13. Method `keySet()` in `Map` returns a set view of the keys contained in that map.

State true or false.

a. True.

b. False.

14. Consider the following code for an HTML form.

```
<form action=?servlet/Login?>
<input type=?text? name=?username? value=?enter username?/>
<input type=?submit? name=?sbutton? value=?signin!..?/>
</form>
```

Which of the following happens upon pressing the submit button in the above form? (choose 2)

Select one or more

a. A request is sent with the HTTP method GET.

b. A request is sent with the HTTP method POST.

c. The parameter username is the only parameter passed to the web server in the request.

d. The parameter username and sbutton are passed to the web server in the request URL.

15. Consider the development scenario where you have created Employees class with implementation code and as per the project requirement you have to ensure that developer in team reusing code written in Employee class only using inheritance by extending the employee class but not by creating the instance of Employee object directly. Please suggest the solution to implement given requirement?

a. Make Employee class methods public.

b. Mark Employee class with abstract keyword.

c. Mark Employee class with final keyword.

d. Make Employee class methods private.

16. Which of the following are used for executing client side script?

Select one or more

a. Servlets.

b. JavaScript.

c. JSP.

d. VBScript.

17. What are the types of refactoring?

Select one or more

a. Logical Structure.

b. Physical Structure.

c. Method Level.

d. Class Level Structure.

18. What is the data type of m in the following code?

```
import java.util.*;
public class set1
{
    Public static void Main(String[] args)
    {
        Set s = new HashSet();
        s.add(20);
        s.add("abc");
        for(_____ m : s)
            System.out.println(m);
    }
}
```

a. Set1.

b. Int

c. Object

d. String.

19. What will be the output for the following code?

```
Public class Exception1 {
    Public static void Main(String args[])
```



```
int i=1,j=1;
try
{
i++;
j--;
if(i/j>1)
i++;
}
Catch(ArithmeticException e)
{
Sop(0);
}
Catch(ArrayIndexOutOfBoundsException e)
{
Sop(1);
}
Catch(Exception e)
{
Sop(2);
}
Finally {
Sop(3);
}
```

```
Sop(4);  
}  
}
```

Ans : 034 will print

20. Examine the PL/SQL block

```
declare  
result Number;  
num1 Number:=&number1;  
num2 Number:=&number2;  
begin  
select num1/num2 into result from dual;  
dbms_output.put_line('Result is'||result);  
exception  
when ZEROS_DIVIDE then  
dbms_output.put_line('Exception Occurred Divide by Zero');  
end;  
/
```

- a. Compiles successfully and terminates the program due to an Exception.
- b. Exception Occurred divide by zero.
- c. Compilation fails.
- d. **Result is 0.**
- e. Result is 10.

21. An art of identifying ,organizing, controlling and verifying the modulation to the software work products built by the developer

- a. SVN
- b. SCM
- c. HCM
- d. SDLC

Ans: may be 'a' or 'b' not exactly mentioned but mostly 'b'.

22. Which parser is a W3C standard?

- a. None of the listed options.

b. SAX

c. DOM

d. XHTML.

23. You have a row level BEFORE UPDATE trigger on the EMP table. This trigger contains a SELECT statement on the EMP table to ensure that the new salary value falls within the minimum and maximum salary for a given job title. What happens when you try to update a salary value in the EMP table ?

a. The trigger fails because you cannot use the minimum and maximum functions in a BEFORE UPDATE trigger.

b. The trigger fails because a SELECT statement on the table being updated is not allowed.

c. The trigger fires successfully.

d. The trigger fails because it needs to be a row level AFTER UPDATE trigger.

24. John wants to see how many employees are there whose salary is above average. Which of the following query will help john to achieve this task?

a. Select count(*) from emp where sal > (select Avg(sal) from emp);

b. Select count(*) from emp where sal exist (select Avg(sal) from emp);

c. Select count(*) from emp where sal > (select Average(sal) from emp);

d. Select count(*) from emp where sal > (select max(sal) from emp);

e. Select count(*) from emp where sal in (select Avg(sal) from emp);

25. abstract public class Employee

```
{  
Protected abstract double getSalesAmount();  
Public double getCommission()  
{  
return getSalesAmount()*0.15;  
}  
}
```

Class Sales extends Employee

```
{  
// insert method here
```

Which two methods inserted independently correctly complete the sales class?

Choose two

a. double getSalesAmount(){return 1230.45;}

- b. public double getSalesAmount(){return 1230.45;}**
- c. private double getSalesAmount(){return 1230.45;}
- d. protected double getSalesAmount(){return 1230.45;}**

26. Select the right coding best practices followed while using java Collections

Select one or more

- a. Copy collections into other collections by calling addAll() methods instead using iterator to copy each collection element.**
- b. Use collections with generic with same type of data.**
- c. All of the listed options.
- d. Use for loop instead of iterator.

27. Manoj has created the Hello servlet that displays Welcome in the browser window. The code of the servlet is:

```
Package myworld;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletConfig;
import javax.servlet.Servlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class hello extends HttpServlet
{
    Protected void doGet(HttpServletRequest request HttpServletResponse response)
    throws ServletException IOException
    {
        PrintWriter out = response.getWriter();
        Out.println("<html>");
    }
}
```

```
Out.println("<head>");
Out.println("<title>My Servlet</title>");
Out.println("</head>");
Out.println("<body>");
Out.println("<h>WELCOME</h>");
Out.println("</body>");
Out.println("</html>");
Out.close();
}
```

ANS not given:

28. What will be the output of the below query?

Select to _CHAR(sysdate+(10/1400),'HH:MI:SS') from dual;

- a. Query contains error
- b. Adds 10 days to the current Timestamp
- c. Adds 10 minutes to the current Timestamp.**
- d. Date functions cannot be converted into char.
- e. Adds 10 seconds to the current Timestamp.

29. Which of the following is an empty tag in HTML?

- a. <h1>
- b. <input>
- c.
**
- d. <a>

30. Consider Vijay is developing a web application. Which method he can to get a collection of elements of same type (for example paragraphs tags) in Java Script?

- a. getElementByName()
- b. getElementById()
- c. none of the listed options
- d. getElementByTagName()**

31. XYZ company database tables are accessed by several users but few users want to do positional row updates or deletes operation on database tables based on business requirement in such scenario?

a. Use database indexes.

b. Use cursors.

c. Use database trigger.

d. Use view.

32. Consider the following statements

Statement A: A resource is passive when it does not have any processing of its own.

Statement B: The content of a passive resource does not change.

a. Statement A is false and statement B is false.

b. Statement A is true and statement B is true.

c. c. Statement A is true and statement B is false.

d. d. Statement A is false and statement B is true.

Answer not known

33. Automatic page Refresh can be done by using refresh Meta Tag.

State True or False.

Select one:

a. True

b. False

34. Gen has written a JSP code in which he is calling the getMessage() function which is returning a value "hello world" You have to identify which code should he use to get this?

a. <html>

<%!

String message="hello world";

String getMessage()

{

return message;

}

%>

Message for you:<%! getMessage() %>

</html>

b. <html> <%=

```
String message="hello world";
{
String getMessage()
}
return message;
```

answer not given

35. Which complex type specifies that the elements should always be in the order specified?

Select one: a. None of the listed options

b. `<xs:complexType name="CountrInfo"><xs:all> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:all></xs:complexType>`

c. `<xs:complexType name="CountrInfo"><xs:choice> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:choice></xs:complexType>`

d. `<xs:complexType name="CountrInfo"><xs:sequence> <xs:element name="countryName" type="xs:string"/> <xs:element name="states" type="xs:integer"/></xs:sequence></xs:complexType>`

36. What will be the output of following code?

```
class Super2{
public void display() {
System.out.println("super class display method");
}
public void exe()
{
System.out.println("super class exe method");
display();
}
```



```
}  
}  
public class InheritMethod extends Super2  
{  
public void display()  
{  
System.out.println("sub class display method");  
}
```

answer not given

37. Which of the following attributes of page directive are invalid?

- a. session
- b. isELIgnored
- c. language r
- d. isScriptingEnabled

38. abstract class Vehicle

```
{  
public int speed()  
{  
return 0;  
}  
}
```

class Car extends Vehicle

```
{  
public int speed()  
{  
return 60;  
}  
}  
class RaceCar extends Car  
{  
public int speed()  
{  
return 120;  
}  
}
```

Answer not known.

39. You are developing a web application using Servlets. You have to use filters so that the web container intercepts the incoming requests before it is forwarded to the servlet. Which of the following method is called for every request intercepted by the filter'?

- a. init
- b. **doFilter**
- c. doGet
- d. destroy

40. developers and you have been asked to develop class by Name ProgrammerAnalyst and to ensure that other developers in team use

ProgrammerAnalyst class only by creating object and team member should not be given provision to inherit and modify any functionality written in ProgrammerAnalyst class using inheritance. How do you achieve this requirement in development scenario?

- a. None of the listed options
- b. Declare the ProgrammerAnalyst class has private
- c. Declare the ProgrammerAnalyst class has final**
- d. Declare the ProgrammerAnalyst class has abstract

41. When a thread is sleeping as a result of sleep(), it releases its locks.

Statement2: The Object.wait() method can be invoked only from a synchronized context.

- a. BOTH Statement1 & Statement2 are TRUE.
- b. BOTH Statement1 & Statement2 are FALSE.
- c. Statement1 is TRUE but Statement2 is FALSE.
- d. Statement2 is TRUE but Statement1 is FALSE.**

42. Consider the usage of JSTL forEach tag in the following code snippet:

```
<font color='green'>
<ul>
<c:forEach flag=errmsg items='${errorMsg}'>
<li>${errmsg}</li>
</c:forEach>
</ul>
</font>
```

The code snippet contains some errors Predict the correct code.

Select one:

a.

<c:forEach flag="errmsg" items='\${errorMsgs}'>

\${errmsg}

</c:forEach>

answer not given

43. Identify the type of variable declared VARIABLE City Varchar2(20).

Select one:

a. Bind Variable

b. Global Variable

c. Host Variable

d. Invalid Variable declaration

e. None of the listed options

44. What is the correct syntax of the declaration which defines the XML version?

Select one:

a. <?xml version="1.0" i>

b. None of the listed options

c. <xml version="1.0" />

d. <?xml version="1.0"?>

45. If your JDBC Connection is in auto-commit mode, which it is by default, then every SQL statement is committed to the database upon its completion. State True or False.

Select one:

a. True

b. False

46. XYZ Company database tables are accessed by several users but for few users need to be provided provision for updating information like address, phone number, email address in secured manner without providing direct access to underlying database base tables. What will the right solution you will implement in such scenario to meet requirement?

Select one:

a. Use database functions

b. Create Views

c. Use database Trigger

d. Use Cursors

47. Which method of jsp is equivalent to service method of servlet?

Select one:

a. jspService()

b. jsp_Service()

c. service()

d. _jspService()

48. What will be the output for following code?

```
public class CompareStrings
{
    public static void main(String[] args)
    {
        String a=new String("string");
        String s=new String("string");
        if(a==s)
            System.out.println("both strings are equal");
        else
            System.out.println("both strings are not equal");
    }
}
```

```
}  
}
```

Select one:

- a. compilation error
- b. Strings cannot be compare using == operator
- c. both strings are equal
- d. both strings are not equal**

49. Consider you are maintaining XYZ company database. XYZ database tables are accessed by several users to fetch daily reports by joining multiple tables found each user writes query which is more than 100 line of SQL statement and submits to server for processing in order to fetch results. This is really increasing the network traffic and also response time. What will the right solution you will implement in such scenarios in order to increase performance?

Select one:

- a. Create Trigger
- b. Create Stored Procedure**
- c. Create index
- d. Create View

50. Which object of JSP holds reference to javax.servlet.http.HttpSession object?

Select one:

- a. request
- b. session**
- c. response
- d. PageContext

1) interface B

```
{  
public void bm1();  
public void bm2();  
}
```

abstract class a implements b

```
{  
public abstract void am1();  
public abstract void am2();  
public void bm1();  
}
```

public class Demo extends a

```
{  
}
```

in above scenario must override which methods?

C) all of the options.

2) Which of the following is incorrect about a delegates?

C) delegates is a value type.

3) data type of m in following?

```
public class set1  
{  
public static void main()  
{  
set s=new hashset();  
s.add(20);  
s.add("abc");  
for(-----m.s)  
system.out.println(m);  
}  
}
```

answer: object

4) <pref tag1>

<%=result %>

</pref tag1>

which of following valid for <body-content>tag of tag1?

b.scriptless

5) Iterator is having previous() method?

b.false

6) inputStream is the class used for stream of characters?--

b.false

7) Which of the following is correct about c# program given below ,if a value "6" is input to it ?

```
using system;
namespace indianconsole..
{
class myprogram
{
static void Main()
{
int index;
int val=44;
int[] a=new int[5];
try
{
console.writer("enter a number");
index=convert.toInt32(console.readline());
a[index]=val;
}
catch(formatexception e)
```

A) It will output:Index out of bounds remaining program.

8)----

9) During Translation the snippet code is copied inside:

D) The servlet method of generated servlet.

10) Code to get the value of "address" request parameter is:

C) \${Param.address}.

11) Gen has written a JSP code in which he is calling the getMessage() function which is returning a value "hello worlh" .You have to identify which code should he use to get this?

**B) <html><%=String message="hello world",String getMessage()
{return message.}%>Message for you <%=getMessage() %></html>.**

12) which method can be used to submit form data that should not be exposed for viewing?

B) Post.

13) output of following?

```
public class VariableDec1
{
public static void main()
int i=32;
char c=65;
char a=c+1;
sysout.println(a);
```

```
}
```

B) a

14) output of following?

```
class Super2
```

```
{
```

```
public void display()
```

```
{
```

```
system.out.println("Super class display method");
```

```
}
```

```
public void exe()
```

```
{
```

```
system.out.println("Super class exe method");
```

```
display();
```

```
}
```

```
public void display()
```

```
{
```

```
system.out.println("sub class display method");
```

```
}
```

```
public static void main()
```

```
{
```

```
inheritMethod o=new inheritMethod();
```

```
o.exe;
```

```
}
```

```
}
```

B) Super class exe method super class display method.

15) what does LOCAL argument in the DECLARE CURSOR statement denote?

A,C,D

A) specifies that cursor can be available only in the batch,stored procedure ,or trigger in which the cursor was created.

C) the LOCAL cursor will have to be explicitly deallocated when the batch,stored procedure ,or trigger terminates.

D) the LOCAL cursor will be implicitly deallocated when the batch ,stored procedure ,or trigger terminates.

16) result of 10.987+"30.765" is :

A) 10.98730.765 .

17) statement A:Arrays have a fixed upper bound,but nested tables are unbounded.

statement B:Second arrays must have consecutive subscripts and nested tables are dense ,but they can be sparse(have non-consecutive subscripts).

B) Both A & B true.

18) which of the following are correct ?

A,B,D

A) argument that uses params keyword must be the last argument of variable argument list of a method.

B) pass by references eliminates the overhead of copying large data items.

D) variable passed as out arguments need to be initialised prior to being passed.

19) consider the following code with line numbers

line4:<%! int a=6 %>

line5:<% int b=5%>

line6: Result is <%=a*b %>

which of the following are true with respect to the above code?

C) line6 is invalid

20) output of following code?

```
public class CompareStrings{
    public static void main()
    {
        if("string.trim()=="string")
            sys.out.println("both are equal");
        else
            sys.out.println("both are not equal");
    }
}
```

C) both are not equal.

21) consider you are developing shopping cart application you have to store details of items purchased by each customer in intermediate memory before storing purchase details in actual database permanently note that number of different items purchased by customer is not define it may vary.how u implement given requirement using java?

B) Implement Using Collections API'S.

22) select correct naming convention used during class declaration .

C,D

C) should be simple & descriptive.

D) class name should be nouns.

23) which complex type specifies that the elements should always be in the order specified?

D) <xs.complexType name="CountInfo"><xs.sequence>

<xs.element name="countryName" type="xs.string"/> <xs.element name="states" type="xs.integer"/></xs.sequence></xs.complex Type>

24) which of the following are correct?

A,B,C

A) All objects created from a class will occupy equal number of bytes in memory.

B) A class is a blueprint or a template according to which objects are accepted.

C) Instance members of a class can be accessed only through an object of that class.

25) Ronald has observed that his web app has some HTML tags or features that all the web browsers do not support.If the clients browser does not support the app may or may not run or may generate undesired output in the web browser of the client .Therefore Ronald wants to identify the type of

browser and other specific info.. about the client that sends the request to the web app.. before invoking the servlet .which of following will help Ronald provide functionality?

A) By programming Filters.

26) which of the following assemblies can be stored in Global Assembly Cache?

C) Shared assemblies.

27) Cultuer & UICulture properties of a page class can have different culture values?

B) False

28) How do you seprate ASP.NET code from the user interface?

B) Using code Behind Forms.

29)-----

30) what is the significance of the @Register directive in a ASP.NET Web page?

B) The directive is used to register user control.

30. What is the Significance of the @Register directive in ASP.NET web Page?

a. The directive is used to register to register an application

b. The Directive is used to register a user control

c. The Directive is used to register a web site

d. The directive is used to register a web page

31. Which Statements are true about large varchar? Select one or more:

a. A sql_variant cannot contain a large varchar data type.

b. Large varchar columns are the only columns that can be used as partitioning key columns

c. large varchar columns cannot be used as partitioning key columns.

d. Large varchar columns can be specified as a key column in an index

e. A sql_variant cannot contain a large varchar data type.

32. What does the following code denote?

```
public class Contract
{
    public string Name{get; set}
    public string Email{get; set}
    public string Address {get; set}
}
Class Customer: Contract
{
    public string Gender{get; set}
    public decimal income{get; set}
}
```

a. Overriding

b. Encapsulation

c. Inheritance

d. Overloading

```

33. public class Threads
{
Public static void main(String [] args)
{
New Threads().go();
}
Public void go()
{
Runnable r =new Runnable()
{
Public void run()
{
System.out.print("Run");
}
}
Thread t=new Thread(r);
t.start();
t.start();
}
}

```

a. Compilation fails

b. An exception is thrown at runtime

c. The code executes normally and prints "Run".

d. The code executes normally, but nothing is printed.

34 What are the tools & plug-ins commonly used in testing java application code?

Select one or more

a. JUnit

b. EMMA

c. ANT

d. JavaScript

35. Which two statements about packages are true?

Select one or more

a. A package is loaded into memory into each time it is invoked.

b. You can achieve information hiding by making package constructs private.

c. You can parameters to packages

d. Packages can be nested.

e. The contents of packages can be shared by many applications.

36. Mention some of the important functions of servlets Filter.

Select one or more

a. None of the listed options

b. Security Checks

c. Modifying the request or response.

d. Allowing all the users

37. Which of the following Listener is used to track number of active sessions or users?

a. HttpSessionListener

b. ServletRequestListener

c. ServletRequestListener

d. HttpSessionbindingListener

38. What will the output for the following code?

```
public class Exe3
```

```
{
```

```
Try
```

```
{
```

```
int i=10;
```

```
int j=1/0;
```

```
return;
```

```
}
```

(Choose Two)

Select one or more

a. error

b. welcome

c. compilation error

d. None of the Listed options

39. Which of the following attributes of page directive are invalid?

Select one

a. session

b. language

c. isELIgnored

d. is ScriptingEnabled

40. What is the use of ServletConfig interface?

Select one

a. A servlet configuration object configuration object used by a servlet container to pass information to a servlet during initialization.

b. All of the listed options.

c. Defines an object to provide client request information to a servlet

d. The ServletConfig object is contained within the ServletContext Object.

41. Which object of JSP holds reference to javax.servlet.http.HttpSession Object?

Select one

a. PageContext

b. response

c. request

d. session

42. Which of the following options can be used by the controller to destroy a session of a web application immediately?

Select one

- a. By setting the session-timeout parameter in the web.xml file to 1 minute
- b. By using the destroy() method
- c. By using the invalidate() method**
- d. By setting the setMaxInactiveInterval() method period to 60 seconds

43. How does SOAP enable creation & usage of Web services?

Select one or more

- a. Enables messaging over HTTP**
- b. Uses standard means of describing data**
- c. Uses proprietary means of describing data.
- d. Provides a robust mechanism to send data & structure over the web.**

44. What are the benefits of using a stored procedure?

Select one or more

- a. Efficient compilation
- **b. Reduced network traffic**
- **c. Efficient reuse of code**
- **d. Precompiled execution, hence faster**
- e. The procedure can reside outside the SQL Server instance hence manageable.

45. Consider you are maintaining ABC company database. ABC company database tables are accessed by 1000 users initially when it was designed. From last two years there was a tremendous increase in the number of records. The count also increased in the number of users who are accessing the database tables to fetch results. Users of ABC company database are reporting a problem that query processing is taking more time when they execute a query against database tables. What will be the right solution you will suggest in such scenarios in order to increase database query performance?

Select one

- a. Create index
- b. Create Function
- c. Create Trigger
- d. Create Stored Procedure**

46. Given that URI-rewriting must be used for session management, identify the query string attribute used when URI-rewriting

Select one

- a. jsessionid**
- b. containerid
- c. servletid
- d. sessionid

47. Consider Vijay is developing a web application. Which method can he use to get a collection of elements of the same type (for example paragraph tags) in JavaScript?

Select one:

- a. getElementById()
- b. getElementByName
- c. none of the listed options
- d. getElementsByTagName()**

48. JAXP Stands for

- a. **Java API for XML Processing**
- b. Java API extensive processing
- c. Java API extensible Processing
- d. None of the listed options

49 What does the following code denote?

```
var orderedCustomers = from customer in Customers where customer Grade == "Premium" orderby  
customer Name select customer Name;
```

select one or more :

- a. **The following code shows the syntax for Ordering data**
- b. **The following code is an example of LINQ query**
- c. The following code is an example of Database query
- d. **The following code shows the syntax for Filtering data.**

50. Which statements about JDBC are true?

Select one or more :

- a. JDBC has 5 types of drivers
- b. **JDBC is an API to access relational databases , spreadsheets and flat files.**
- c. **JDBC stands for Java Database Connectivity**
- d. **JDBC is an API to bridge the object-relational mismatch between OO programs and relational databases.**

51. JavaBeans with JSP?

Select one :

- a. **<jsp:useBean><jsp:setProperty> and <jsp:getProperty>**
- b. <jsp:useBean> and <jsp:plugin>
- c. <jsp:useBean> and <jsp:include>
- d. <jsp:setProperty> <jsp:getProperty> and <jsp: forward>

52. Select two runtime exceptions (Choose Two)

- a. FileNotFoundException
- b. IOException
- c. NullPointerException
- d. **ArrayIndexOutOfBoundsException**
- e. **SQLException**

53. Manoj has created the Hello servlet that display Welcome in the browser window

The code of the servlet is:

```
package myWorld  
import java.io.IOException;  
import java.io.PrintWriter  
import javax.servlet.ServletConfig;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;  
public class hello extends HttpServlet  
{
```



```
protected void doGet(HttpServletRequest request , HttpServletResponse response)throws IOException
{
    PrintWriter out= response. getWriter()
    out.println("<html>");
    out.println("<head>");
    out.println("<title>My Servlet</title>");
    out.println("<head>");
    out.println("<h>WELCOME</h?>");
    out.println("</body>");
    out.println("</html>");
}
}
```

```
<servlet><servlet-name>hello</servlet-name><servlet-class>myworld.hello</servlet-
class></servlet><servlet-mapping><servlet-name>hello</servlet-name><url-pattern>/hello</url-
pattern></servlet-mapping>
```

54. Consider you are developing an ATM application of ABC Bank using

a. using thread Synchronization

55 Which statements are true about HashTables?

a. The value can be the null reference

d. The key cannot be null reference

56. View that creates static results can be modified using _____ which allow to define how the underlying tables are modified ensuring your data integrity.

a. Triggers.

57. Consider you are creating a cursor. Chose the sequence of steps to work with cursors?

d. Open, Declare, Fetch Close.

58. What will the output for following code?

```
public class MethodOverloading {
int m=10,n;
public void div(int a)throws Exception{
    n=m/a;
    System.out.println(n);
}
public void div(int a, int b){
    n=a/b;
}
public static void main(String[] args) throws Exception {
    MethodOverloading o=new MethodOverloading();
    o.div(0);
```

```
o.div(10, 2);  
}  
}
```

a. It will give ArithmeticException

59. Please select the correct statement with respect to including JavaScript in HTML pages.

b. All of the listed options

60. which JSTL code snippet can be used to perform URL rewriting??

c. <a href='<c:url value="cognizant.jsp"/>

1. How should servlet developers handle the HttpServlet's service() method when extending HttpServlet?

- a. They should override the service() method in most cases.
- b. They should call the service() method from doGet() or doPost()
- c. They should call the service() method from the init() method.
- d. They should override at least one doXXX() method(such as doPost()).**

2. Cookie is _____

- a.
- b. Servlet Attribute
- c. A plain text that resides on client machine**
- d. An encrypted file sent to the server by client

3. Which statements about disabling scripting elements are true?

- a. You can't disable scripting via the DD.
- b. You can only disable scripting at the application level.
- c. You can disable scripting programmatically by using the isScriptingEnabled page directive attribute.
- d. You can disable scripting via the DD by using the <scripting-invalid> element.**

4. Question

- a. \${param[0]}**
- b. \${param.[0]}
- c. \${param['0']}**
- d.

5. Singleton is _____

- a. Behavioral pattern
- b. Creational**
- c. Structural
- d. Integration

6. getInitParameterNames() returns

- a. String
- b. String[]
- c. Enumeration**
- d. ArrayList

7. Significance of '*errorPage*' in page directive?
- The error in current page leads to *errorPage* value.
 -
 -
 -
8. Java Beans consists of getter and setter methods. **True**
9. *Init()* can be overridden. **True**
10. *Jsp:param*
11. Which is best for business logic?
- Servlet**
 - JSP
 - Ajax
 - DataBase
12. Model 1 architecture is used for large applications. **False**
13. Which of following is true?
- Jsp is independent of servlet code
 - Servlet is independent of JSP page
 -
 -
14. What related to *sendRedirect()* is true?
- When response is committed, it causes *IllegalAccessExceptio*n
 -
 -
 -
15. Which of the following related to POST are true?
- POST can send unlimited data
 - POST cannot send binary data
 -
 -
16. Eliminate duplicate code... transfer object
17. Construct a pattern of multiple views... Composite view
18. ... View delegate
- 19.
- Scriptlet
 - Expression
 - Directive
 -
 -
20. "When is it not possible to call the *sendRedirect()* method of response object?"

Select one correct answer from the following." 1

- a. After creating a connection to the Database.
 - b. After the response is already committed.**
 - c. After iterating through the resultSet object
 - d. After opening an I/O stream
21. For including "text/plain" in jsp directive...
- a. < contentType="text/plain">**
22. Listener for HttpSession persists..
- a. HttpSessionBindingListener**
 - b. HttpSessionListener
 - c.
 - d.
23. How do you get information about init parameter?
- a. <init-param>blah</init-param>
 - b. ServletContext().getInitParameter();
 - c.
 - d.
24. HttpSession sess=ServletConfig.getSession();
Int counter=sess.getAttribute("counter");
ServletConfig sc=sess.setAttribute("counter",counter++);
Check the options?

.....

1)Which is correct?

- a)Override init() to cleanup db connection
- b)Override init() to set an initparam
- c)we can override init() but don't override
- d)To fetch initParam and execute an initial code**

2)Singleton is

- a. Creational**
- b. Structural
- c. Behavioral

3)How to set a header to response

- a. HttpServletResponse.setHeader("n","v");**
- b. HttpServletResponse.setHeader("n");
- c. HttpServletResponse.setHeader("v");

- d. Cannot do it

4)JSTL core iteration custom tags(choose 2)

- a. Body of tag may contain ELCODE,but no scripting code
- b. Iteration over arrays,collection,map and tags**
- c. Iteration over map but only key of object map
- d. Mapping may be used in tag body used
- e. When looping over collection a loop statement**

5)HttpSession s=.....

```
s.setAttribute("x","xv");
```

```
s.invalidate();
```

```
res.getWriter().print(s.getAttribute("x"));
```

output?

- a. Value=null
- b. illegalStateException**
- c. InvalidSession
- d. Value=xv

6>true(Choose 3)

- a. <jsp:include>-static
- b. Bad practice to include one JSP:include
- c. <%@include %>-static**
- d. Through JSP include HTML can be included**
- e. Through JSP include JSP alone can be included**

7)Scripting allowed in JSP by default(True/false)

8)Service() How many times called in life?

- a. None
- b. Once for every req**
- c. Once
- d. None if init() is overridden

9)<taglib>

<taglib-uri>http://mytaglib.com</taglib-uri>

<taglib-loc>http://your.com</taglib-loc>

</taglib>

- a. <taglib-include> to be used instead of <taglib-loc>
- b. Invalid syntax of <taglib-uri>
- c. Malformed xml
- d. The value of <taglib-loc> cannot be an absolute URI

10)Servletconfig comes into picture

- a. After init()
- b. After service()
- c. After constructor
- d. After servlet loaded**

11)Servlet gets binary stream for writing an image or other binary type to HttpServletResponse

- a. Getoutputstream()**
- b. getBinary Stream()
- c. getwriter()
- d. getPrintWriter()

12)When control transfer from p1.jsp to p2.jsp,the scope of the data in p1.jsp will be available in p2?

- a. Yes
- b. No
- c. Yes but in some conditins no
- d. No but in some conditions yes**

13)Business tier denotes (Choose 3)

- a. BusinessDelegate**
- b. Session Façade**
- c. Transfer Object**
- d. Service to worker
- e. DAO

14)Servlet life cycle

15>true?

- a. JSP alone serves client request**
- b. None
- c. JSP cannot stand alone
- d. Servlet request to make JSP more efficient

16)To handle business logic of a web app is in

- a. AJAX
- b. Servlets**

- c. DB
- d. JSP

17)servlet as main() as entry(T/F)?

18)Jsp active resource

- a. **Processing capability at server mac**
- b. Processing capability at client mac
- c. Java script along with HTML
- d. None

19)Scriptlet code syntax error in which part of JSP life cycle is identified

- a. **Compilation**
- b. Translation
- c. Execution
- d. Container doesnot mind scriptcode syntax error

20)Design pattern—shielding clients from important of business services

- a. MVC
- b. MVC2
- c. **Business delegate**
- d. Transfer object

21)NOT MVC

- a. JSF
- b. **Tiles**
- c. Struts
- d. SPRING

22)if age=31 ,wht will be the output of \${PARAM AGE ge 25}?

- a. 31
- b. 25
- c. **True**
- d. 1

23)JSP executed at

- a. client
- b. **server**
- c. both

24)EL implicit=JSP implicit objects(T/F)

25)Presentation tier pattern?

- a. DAO
- b. FC**
- c. Server locator
- d. Session Facade

26)Servlet A calls servlet B of same container but different applications ,now data can be accessed in servlet B through

- a. REQUEST**
- b. RESPONSE
- c. CONTAINER
- d. SESSION

.....
.

1. A JSP page needs to set the property of a given JavaBean to a value that is calculated with the JSP page. Which of the following jsp:setProperty attributes must be used to perform this initialization?(Choose 3)

- ☒ **a.value**
- ☒ **b.property**
- ☒ **c.name**
- ☐ d.attribute
- ☐ e.id

2.Where is JSP executed?

- ☐ a.Both in Server Machine and Client Machine
- ☐ b.Depends upon configuration
- ☐ c.Client machine
- ☒ **d.Server machine**

3.Which of the following are true about MVC architecture?(Choose 3)

- ☒ **a.Servlet forms the controller part**
- ☒ **b.Ease of maintenance and promotes reusability**
- ☐ c.JSPs are the target of all requests
- ☒ **d.Servlets are the target of all requests**
- ☐ e.JSP forms the controller part

4. Identify model component in an MVC pattern.

- ☐ a. Browser
- ☐ b. ActionServlet
- ☐ c. JSP
- ☒ d. Data Bean

5. Which of the following statement is correct?

- ☐ a. You can override init() method but you should not.
- ☒ b. You override init() method to fetch init params and execute an initial code.
- ☐ c. You override init() method to set an init param
- ☐ d. You override init() method to cleanup database connection

6. Select the correct flow of Servlet lifecycle

- ☒ a. Loading->Instantiation->Initialization->Execution->Destroy
- ☐ b. Loading->Execution ->Instantiation->Initialization ->Destroy
- ☐ c. Loading->Initialization ->Instantiation ->Execution->Destroy
- ☐ d. . Loading->Initialization ->Instantiation ->Execution->Destroy

7. ____ is a collection of actions that encapsulate some functionality to be used from within a JSP page.

- ☐ a. Tag library descriptor
- ☐ b. URI
- ☐ c. Presentation
- ☒ d. Tag library

8. A serializable object for transferring data over the network is an example of which of the following design pattern?

- ☐ a. Assembler
- ☐ b. Session Façade
- ☒ c. Transfer Object
- ☐ d. Network Object

9. Which of the following statements are True?(Choose 2)

- ☐ a. A JSP must contain some Java code
- ☐ b. JSP executes faster than HTML
- ☒ c. A JSP can contain only HTML
- ☒ d. A JSP is executed at server and plain HTML is sent back to the client browser

10. Which of the following statements is TRUE?

- ☐ a. A servlet is a JSP file with embedded Java

- ☐ b. A servlet is a java program with embedded HTML
- ☐ c. None of the listed options
- ☐ d. A JSP is a Java program with embedded HTML

11. Which of the following statements are TRUE? (Choose 3)

- ☒ a. The purpose of EL is to make a JSP script free
- ☐ b. EL is evaluated at client machine
- ☐ c. EL stands for Extended Language
- ☒ d. EL is enabled in a JSP by default
- ☒ e. EL is a simple and powerful replacement of Standard Actions

12. How will you access a servlet context initialization parameter named "company-name"?

- ☐ a. `${init.company-name}`
- ☐ b. `${init['company-name']}`
- ☒ c. `${initParam["company-name"]}`
- ☐ d. `${contextParam.company-name}`

13. Using multiple JSP components to construct your view is an example of

- ☐ a. ViewHelper Pattern
- ☐ b. Service Locator
- ☐ c. Pattern Proxy Pattern
- ☒ d. Composite View Pattern

14. In an Expression Language `#{8/0}` displays Infinity

- ☒ True
- ☐ False

15. When declaring listener in the DD, which sub-elements of the <listener> element are required? (Choose all that apply)

- ☒ a. <listener-class>
- ☐ b. <listener-type>
- ☐ c. <listener-name>
- ☐ d. <listener-class-name>

16. Which of the following can store attributes? (Choose 3)

- ☐ a. ServletResponse
- ☒ b. HttpServletRequest
- ☒ c. ServletContext
- ☒ d. HttpSession

17. What is the return type of `getAttribute()` method of `HttpServletRequest`?

- ☒ a.Object
- ☐ b.String
- ☐ c.Attribute
- ☐ d.None of the above

18. Which of the following are used to retrieve the value associated to the parameter name provided within the `<init-param>` tag?

- ☐ a.`getServletContext().getInitParameter(paramname)`
- ☒ b.`getServletConfig().getInitParameter(paramname)`
- ☐ c.`getServletContext().getParameter(paramName)`
- ☐ d.`getServletConfig().getParameter(paramName)`

19. Init parameter can be called from servlet constructor.

- ☐ True
- ☒ False

20. Where is JSP translation and compilation carried?

- ☒ Deployment

21. Writer object for response

- ☒ `response.getWriter()`
- ☒ `response.getWriter().getOutputStream()`

22. Java bean are Java classes with getter and setter property

- ☒ True
- ☐ False

23. EL implicit and JSP are same

- ☐ True
- ☒ False

24. Session shutdown formally

- ☒ `Session.invalidate`

25. Binary stream can be sent after servlet processing

- ☒ True
- ☐ False

26. Which scope to use, so that all JSPs can access the resource?

- ☐ Request
- ☐ Session

☐ Application

☐ Page

27. Which is MVCs struts framework controller?

☐ ActionServlet

☐ Data bean

☐ JSP

☐ None of these

28. Which is the default scope of <jsp:usebean> and <jsp:getProperty> actions?

☐ a. Page

☐ b. session

☐ c. request

☐ d. application

29. The requested resource is returned in a message body of a HTTP response.

☐ True

☐ False

30. You are designing a complex webapp that uses multi-tier architecture. The application must provide UI interfaces for HTML as well as XML and should be maintained. Which design pattern would you use?

☐ a. Business Delegate

☐ b. MVC

☐ c. Data Access Object

☐ d. Data Transfer Object

31. Which statements about ServletContext initialization parameters are true?

☐ a. They should be used for data that changes rarely.

☐ b. They should be used for data that changes frequently.

☐ c. They can be accessed using ServletContext.getParameter().

☐ d. They can be accessed using ServletContext.getInitParameter().

☐ e. They should be used for data that is specific to a particular servlet.

☐ f. They should be used for data that is specific to an entire web application.

32."Your servlet class depends on a utility class named com.abc.TaxUtil.Where would you keep the TaxUtil.class file?

- ☐ a.WEB-INF
- ☐ b.WEB-INF/classes (Question was not the exact one but answer was this)
- ☐ c.WEB-INF/lib
- ☐ d.WEB-INF/jars
- ☐ e.WEB-INF/classes/com/abc

33. To get value of address request parameter?

- ☐ `${param.address}`

34.Some question on active and passive resource(Choose 3)

35.Front Controller properties

36.Which is not JSP implicit object?(Choose 3)

- ☐ Request scope
- ☐ Session
- ☐ Out
- ☐ context

Question 1

Select which of the following XML documents are well-formed XML documents.

- ☐ a. `<productname>Electric Water Heater&piccoro_</productname>`
- ☐ b. `<productname>"Water Purifier(<<6>>)"</productname>`
- ☐ c. `<productname>Dehumidifier "XZ001" </productname>`
- ☐ d. `<productname/ >`

Select any 1 option.

Correct answer : **c**

When the character "&" is directly described within the element, it is parsed as the start of an entity reference. Since an entity reference requires the ";" character, a is not a well-formed document. Directly describing the "<" character within an element is parsed as a start tag, rather than element content, and therefore, b is also not a well-formed document.

A blank space is not allowed after the "/" character in an empty element, so d is also not a well-formed document.

Question 2

Select which of the following is correct with respect to the description position of the attribute definition if an element is defined within XML Schema, and an attribute is added to that element.

- ☐ a. The attribute definition is described before the complex type definition model group.
- ☐ b. The attribute definition is described within the complex type definition model group.
- ☐ c. The attribute definition is described after the complex type definition model group.
- ☐ d. If the attribute definition is inside the complex type definition, there are no restrictions on the description position

Select any 1 option.

Correct answer : **c**

The description position of the attribute definition must be after the complex type definition model group (sequence element, etc.)

Example)

```
<xs:element name="ProductInformation" type="productInfoType" />
<xs:complexType name="productInfoType">
  <xs:sequence>
    <xs:element name="ProductName" type="xs:string" />
    <xs:element name="Price" type="xs:int" />
  </xs:sequence>
  <xs:attribute name="ProductID" type="xs:string" use="required" />
</xs:complexType>
```

Accordingly, the correct answer is c.

Question 3

Select which of the following is the specification used when transforming XML documents to HTML.

- ☐ a. XSLT
- ☐ b. DTD
- ☐ c. XML Schema
- ☐ d. SOAP

Select any 1 option.

Correct answer : **a**

XML documents can be transformed and output in XML format, HTML format, or plain text through XSLT style sheets.

Question 4

Select which of the following is correct with respect to an XML parser.

- ☐ a. An XML parser transforms XML documents using an XSLT style sheet
- ☐ b. An XML parser checks whether an XML document is a well-formed document
- ☐ c. An XML parser must be able to conduct validity verification to qualify as an XML parser
- ☐ d. An XML parser is software developed by the W3C

Select any 1 option.

Correct answer : **b**

At a minimum, an XML parser must include functions to check whether an XML document is a well-formed document. Some XML parsers also include functions to perform validity verification. XML parsers are developed and marketed by their respective software vendors.

Accordingly, the correct answer is b.

Question 5

Select which of the following describes the method to ensure that the character encoding for transformation results is "UTF-16" when applying an XSLT stylesheet to a source XML Document, and outputting the transformation results.

- ☐ a. Make the character encoding of the source XML Document "UTF-16"
- ☐ b. Make the character encoding of the XSLT stylesheet "UTF-16"
- ☐ c. Designate "UTF-16" as the encoding attribute of the `xsl:template` element that is described first in the XSLT stylesheet
- ☐ d. Designate "UTF-16" as the encoding attribute of the `xsl:output` element

Select any 1 option.

Correct answer : **d**

To designate the character encoding for transformation results, you describe the character encoding for the encoding attribute of the `xsl:output` element.

```
<xsl:output encoding="UTF-16" />
```

Accordingly, the correct answer is d.

Question 6

Select which of the following is a correct XML declaration description.

- ☐ a. `<?xml version="1.0" encoding="">`
- ☐ b. `<?xml encoding="UTF-8">`

- ☐ c. `<?xml encoding="UTF-8" version="1.0"?>`
- ☐ d. `<?xml version="1.0"?>`

Select any 1 option

Correct answer : **d**

The version designation may not be omitted from an XML declaration. In addition, XML declarations must always be in the order of 1) version and 2) encoding.

Accordingly, the correct answer is d.

Question 7

Select which two of the following are correct with respect to a DTD.

- ☐ a. Designate #PCDATA in an element type declaration to define an element in which only character data is included
- ☐ b. Designate CDATA in an element type declaration to define an element in which only character data is included
- ☐ c. Designate ANY in an element type declaration when you do not wish to have any content in an element
- ☐ d. Designate EMPTY in an element type declaration when you do not wish to have any content in an element

Select any 2 options.

Correct answer : **a, d**

For a DTD, enclose #PCDATA in "()" to define an element in which only character data is contained. Use EMPTY to define an element for which you wish to have no content (empty element).

- Definition for an element in which only character data is contained
`<!ELEMENT element1 (#PCDATA)>`

- Definition for an element with no content
<!ELEMENT element1 EMPTY>

Accordingly, the correct answers are a and d.

Question 8

Select which of the following files has the correct extension as a file storing an XML document.

- ☐ a. a.xml
- ☐ b. b.html
- ☐ c. c.txt
- ☐ d. All of the above

Select any 1 option.

Correct answer : **d**

Since there are no particular rules related to file names for files storing XML documents, XML documents may be stored under any name.

Question 9

Which of the following XML Schema definitions is not correct if you wish content element contents to be a text string that does not include tabs (#X9), linefeeds (#xA) or carriage returns (#xD), or a text string that replaces tabs (#X9), linefeeds (#xA) and carriage returns (#xD) with blank space?

Assume that the XML Schema namespace prefix is "xs".

- ☐ a. <xs:element name="Content" type="xs:token" />
- ☐ b. <xs:element name="Content" type="xs:normalizedString" />
- ☐ c. <xs:element name="Content" type="xs:string" />

- ☐ d. <xs:element name="Content" type="xs:NMTOKEN" />

Select any 1 option.

Correct answer : **c**

For an embedded simple type, use "token type" or "NMTOKEN type" to express a text string that does not include tabs (#X9), linefeeds (#xA) or carriage returns (#xD). "normalizedString type" can also be used to replace any included tabs (#X9), linefeeds (#xA) or carriage returns (#xD) with blank spaces. "string type" can include tabs (#X9), linefeeds (#xA) or carriage returns (#xD) in any text.

Accordingly, c is the incorrect definition.

Question 10

Select which of the following elements should be used to sort the node set order in an XSLT stylesheet.

The XSLT namespace prefix is "xsl".

- ☐ a. xsl:sort
- ☐ b. xsl:orderBy
- ☐ c. xsl:order
- ☐ d. The node set order cannot be sorted in an XSLT stylesheet

Select any 1 option.

Correct answer : **a**

Use the xsl:sort element to sort the node set order in an XSLT stylesheet. The xsl:sort element is described as the child element of the xsl:apply-templates element or the xsl:for-each element. There are no xsl:orderBy or xsl:order XSLT elements.

Accordingly, the correct answer is a.

Question 11

Select which two of the following are valid XML document with respect to "DTD", below.

"DTD"

```
<!DOCTYPE Calendar [  
<!ELEMENT Calendar (Month,(Date,Day)+)*>  
<!ELEMENT Month (#PCDATA)>  
<!ELEMENT Date (#PCDATA)>  
<!ELEMENT Day (#PCDATA)>  
<!ATTLIST Calendar Year CDATA #IMPLIED>  

```



a.

```
<Calendar Year="2007">  
  <Month>January</Month>  
  <Date>1</Date>  
  <Day>Monday</Day>  
  <Date>2</Date>  
  <Day>Tuesday</Day>  
  <Date>3</Date>  
  <Day>Wednesday</Day>  
</Calendar>
```



b.

```
<Calendar Year="2007">  
  <Month>January  
    <Date>1</Date>  
    <Day>Monday</Day>  
    <Date>2</Date>  
    <Day>Tuesday</Day>  
    <Date>3</Date>  
    <Day>Wednesday</Day>  
  </Month>  
</Calendar>
```



c.

```
<Calendar>  
  <Month>January</Month>  
  <Month>February</Month>
```

```
<Month>March</Month>
</Calendar>
```



d.

```
<Calendar/>
```

Select any 2 options.

Correct answer : **a, d**

Since the "Month," "Date," and "Day" elements are all child elements of "Calendar," the "Date" and "Day" elements are not child elements of "Month." Accordingly, b is not a valid XML document. The "+" designation for number of occurrences represents an occurrence of once or more. When describing the "Month" element, the "Date" and "Day" elements cannot be omitted; accordingly, c is not a valid XML document. The "*" designation for number of occurrences represents an arbitrary number of occurrences, including 0. As such, in the case of 0 occurrences, the <Calendar/> description is used. This being the case, d is a valid XML document.

Accordingly, the correct answers are a and d.

Question 12

Given "XML Document" below, select the namespace to which the Id attribute belongs.

"XML Document"

```
<ItemList xmlns="urn:example:Item"
  xmlns:Item01="urn:example:Item01">
  <Item01:ItemInformation Id="X01-0001">
    <ItemName>XML SchemaProblemSet1</ItemName>
    <Price>1500</Price>
  </Item01:ItemInformation>
</ItemList>
```



a. ItemInfo



b. urn:example:Item



c. urn:example:Item01

- ☐ d. The Id attribute does not belong to a namespace

Select any 1 option.

Correct answer : **d**

In "XML Document," two namespaces have been declared. One is the default namespace "urn:example:Item," while the other is namespace "urn:example:Item01;" the namespace prefix is "Item01." For an attribute to belong to a namespace, the namespace prefix must always be described, and the default namespace is not applied. Because a namespace prefix is not attached to the Id attribute, the Id attribute does not belong to a namespace.

Accordingly, the correct answer is d.

Question 13

Select which of the following is a correct element type declaration for the occurrence of the "FirstName" element and the "LastName" element in that order as the child element of "Name" Element.

- ☐ a. <!ELEMENT Name (FirstName) >
<!ELEMENT Name (LastName) >
- ☐ b. <!ELEMENT Name (FirstName, LastName) >
- ☐ c. <!ELEMENT Name (FirstName | LastName) >
- ☐ d. <!ELEMENT Name (FirstName / LastName) >

Select any 1 option.

Correct answer : **b**

For a DTD element type declaration, the occurrence of the "FirstName" element and the "LastName" element in that order as child elements of the "Name" element are defined using a comma (,) to separate the "FirstName" element and "LastName" element.

Accordingly, the correct answer is b.

Question 14

Select which two of the following are described as the top-level element in an XSLT stylesheet. The XSLT namespace prefix is "xsl".

- ☐ a. xsl:stylesheet
- ☐ b. xsl:transform
- ☐ c. xsl:template
- ☐ d. xsl:output

Select any 2 options.

Correct answer : **a, b**

The top-level element of an XSLT stylesheet becomes the root element of the XSLT stylesheet. The xsl:stylesheet element is described as the root element of the XSLT stylesheet, and the actual template rule is described as the descendant of the xsl:stylesheet element. The xsl:transform element may be described in place of the xsl:stylesheet element.

Accordingly, the correct answers are a and b.

Question 15

Select which of the following is required for a well-formed XML document.

- ☐ a. XML declaration
- ☐ b. Schema definition
- ☐ c. Element
- ☐ d. Entity reference

Select any 1 option.

Correct answer : **c**

A well-formed XML document requires a root element.

Accordingly, the correct answer is c.

Question 16

Select which three of the following must always be a well-formed XML document.

- ☐ a. XHTML documents
- ☐ b. XML Schema documents
- ☐ c. XSLT style sheets
- ☐ d. Output results from XSLT style sheets

Select any 3 options.

Correct answer : **a, b, c**

XSLT style sheet output results may be in XML format, plain text or in HTML format.

Question 17

Select which two of the following are the XML Schema element element that defines a number of occurrences between 1 and 5 for the "Telephone_Number" element.

`<xs:element name="Telephone_Number" type="xs:string" />`

- ☐ a. `<xs:element ref="Telephone_Number" minInclusive="1" maxInclusive="5" />`
- ☐ b. `<xs:element ref="Telephone_Number" minOccurs="1" maxOccurs="5" />`
- ☐ c. `<xs:element ref="Telephone_Number" maxInclusive="5" />`
- ☐ d. `<xs:element ref="Telephone_Number" maxOccurs="5" />`

Select any 2 options.

Correct answer : **b, d**

Use the minOccurs attribute and maxOccurs attribute to designate the number of occurrences for an element. The minOccurs attribute and maxOccurs attribute may be omitted. In this case, the value is "1." "minInclusive" and "maxInclusive" are constraining facets that designate the minimum and maximum values, respectively, and cannot be designated as attributes in element type declarations.

Accordingly, b and d are the correct answers.

Question 18

Select which three of the following are valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Data" type="dataType" />
  <xs:complexType name="dataType">
    <xs:sequence>
      <xs:element ref="DataFile" maxOccurs="100" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="DataFile" type="dataFileType" />
  <xs:complexType name="dataFileType">
    <xs:sequence>
      <xs:element ref="DataFileName" />
    </xs:sequence>
  </xs:complexType>
  <xs:element name="DataFileName" type="xs:string" />
</xs:schema>
```



a.

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
```

```
<DataFileName>accountList.xml</DataFileName>
</DataFile>
<DataFile>
  <DataFileName>productList.xml</DataFileName>
</DataFile>
</Data>
```

☐ **b.**

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
    <DataFileName>accountList.xml</DataFileName>
    <DataFileName>productList.xml</DataFileName>
  </DataFile>
</Data>
```

☐ **c.**

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile>
    <DataFileName>accountList.xml</DataFileName>
  </DataFile>
</Data>
```

☐ **d.**

```
<?xml version="1.0" encoding="UTF-8"?>
<DataFile>
  <DataFileName>accountList.xml</DataFileName>
</DataFile>
```

☐ **e.**

```
<?xml version="1.0" encoding="UTF-8"?>
<Data>
  <DataFile/>
</Data>
```

Select any 3 options.

Correct answer : **a, c, d**

The following summarizes the content defined by the "XML Schema Document:"

- The "Data" element occurs one time.
- The "DataFile" element is defined as the child element of the "Data" element.
- The "DataFile" element may occur from 1 to 100 times.
- The "DataFileName" element is defined as the child element of the "DataFile" element.
- The "DataFileName" element occurs one time.

The number of occurrences for an element can be designated by the element element or model group (xs:sequence, etc.) using the minOccurs attribute and the maxOccurs attribute. The number of occurrences is one time when these attributes are omitted. All elements defined within the XML Schema Document can be described as root elements of the XML document.

a, c, and d are valid XML documents. In b, the "DataFileName" child element of the "DataFile" element occurs two times, and is therefore not a valid XML document. In e, the "DataFile" element is an empty element, and is therefore not a valid XML document.

Accordingly, the correct answers are a, c, and d.

Question 19

Select the XPath expression that fits in ____ (1) ____ of "XSLT Stylesheet" when "XSLT Stylesheet" is applied to the given "XML Document" to output "Transformation Results".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
<UserList>
  <UserID Password="xxxxxx" authority="administrator">User01</UserID>
  <UserID Password="zzzzzz" authority="general">User02</UserID>
  <UserID Password="xyzyxz" authority="system">User03</UserID>
  <UserID Password="yyyyyy" authority="general">User04</UserID>
</UserList>
```

"Transformation Results"

```
<?xml version="1.0" encoding="UTF-8"?>
<GeneralUserList>
  <UserID>User02</UserID>
  <authority>general</authority>
  <UserID>User04</UserID>
  <authority>general</authority>
</GeneralUserList>
```

"XSLT Stylesheet"

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <GeneralUserList>
      <xsl:apply-templates select="_____ ( 1 ) _____" />
    </GeneralUserList>
  </xsl:template>
  <xsl:template match="UserID">
    <UserID><xsl:value-of select="text()" /></UserID>
    <xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>
  </xsl:template>
</xsl:stylesheet>
```

- ☐ a. UserList/UserID[@authority='general']
- ☐ b. UserList/UserID/@authority='general'
- ☐ c. UserList/UserID/[@authority='general']
- ☐ d. There is no correct description, since there is an error in the XPath expressions

Select any 1 option.

Correct answer : **a**

The node set can be filtered using XPath. This is called the "XPath predicate," where the "[terms]" coming after the XPath expression are described. The authority attribute filters according to "general" via the transformation results. The "UserList/UserID" is described in the select attribute of the xsl:apply-templates element, after which [@authority='general.']. is described to perform node set filtering. The authority attribute becomes "general" only, and "Transformation Results" is output.

Accordingly, the correct XPath expression is a.

Question 20

Select which of the following is the correct combination of XML Schema elements when a simple type element is defined by the XML Schema, and restrictions have been placed on the simple type.

- ☐ a. element element, simpleType element, extension element
- ☐ b. element element, complexType element, extension element
- ☐ c. element element, simpleType element, restriction element
- ☐ d. element element, complexType element, restriction element

Select any 1 option.

Correct answer : **c**

A simpleType element is used to define the simple type; a restriction element is used to place restrictions. Use a constraining facet as the child element of the restriction element, placing restrictions on the element content.

In the following example, a regular expression is used for the "ProductNumber" element, and the values that can be set have been restricted ("X" + 2 numeral number + "-" + 4 numeral number (e.g. X01-0001))

```
<xs:element name="ProductNumber" type="productType" />
<xs:simpleType name="productType">
  <xs:restriction base="xs:string">
    <xs:pattern value="X\d{2}-\d{4}" />
  </xs:restriction >
</xs:simpleType>
```

Accordingly, the correct answer is c.

Question 21

Select which two of the following correctly describes the difference between HTML and XML.

- ☐ a. Under HTML, the names and meanings of tags have been predefined. Under XML, well-formed XML documents allow for the free description of tags.
- ☐ b. HTML is a grass roots de facto standard, while XML has been drafted by the W3C.

☐ c. HTML cannot mark up semantic information for data. XML can mark up semantic information for data.

☐ d. HTML is not a markup language. XML is a markup language.

Select any 2 options.

Correct answer : **a, c**

Both HTML and XML are markup languages drawn up by the W3C. While HTML defines only the web display format of data through tags, XML can define the semantic information of data through tags. Under the HTML specification, the names and meanings of each tag are already defined, while tag names (element names) under XML can be used freely according to well-formed document.

Question 22

Select which two of the following elements may be used for conditional branch processes in an XSLT stylesheet.

☐ a. `xsl:case`

☐ b. `xsl:choose`

☐ c. `xsl:if`

☐ d. `xsl:switch`

Select any 2 options.

Correct answer : **b, c**

In an XSLT stylesheet, the conditional branch processes `xsl:choose` element and `xsl:if` element are used. There is no `xsl:case` or `xsl:switch` for XSLT elements.

Accordingly, the correct answer is b, and c.

Question 23

Select which of the following is a well-formed XML document.



a.

<Bylaw>

The final decision-making authority is the <Department>General Affairs
Department</Department><Position>Section Chief</Position>

</Bylaw>



b.

<Article>Article 2</Article>

<Bylaw>

The final decision-making authority is the General Affairs Department Section Chief.

</Bylaw>



c.

<Bylaw>

<Final_decision-making_authority Department="General Affairs Department" Position="Section Chief">

</Bylaw>



d.

<Bylaw>

<Final_decision-making_authority><Department>General Affairs Department<Position>Section
Chief</Department></Position></Final_decision-making_authority>

</Bylaw>

Select any 1 option.

Correct answer : **a**

B will result in an error since there is no single root element for the XML document. c will result in an error since the "Final_decision-making_authority" element does not have an end tag. d will result in an error because the "Department" element and "Position" element do not have a correctly nested structure.

Accordingly, the correct answer is a.

Question 24

Select which two of the following correctly explains the value that can be described in the "ItemPrice" element content.

```
<xs:element name="ItemPrice" type="itemPriceType" />
<xs:simpleType name="itemPriceType">
  <xs:restriction base="xs:int">
    <xs:minInclusive value="500" />
    <xs:maxInclusive value="2000000" />
  </xs:restriction>
</xs:simpleType>
```

- ☐ a. The value "2000000" can be described, but the value "2000001" cannot be described
- ☐ b. The value "1999999" can be described, but the value "2000000" cannot be described
- ☐ c. The value "501" can be described, but the value "500" cannot be described
- ☐ d. The value "500" can be described, but the value "499" cannot be described

Select any 2 options.

Correct answer : **a, d**

With this simple type, "minInclusive" and "maxInclusive" limit the respective minimum and maximum values that can be described for the ItemPrice element. However, "minInclusive" and "maxInclusive" include the values defined in the value attribute.

In this problem, the value ranges from 500 to 2000000.

Accordingly, the correct answers are a and d.

Question 25

Select which is the best DTD definition to fulfill the "Requirements" below.

"Requirements"

- The "BookList" element has the child element "BookInfo"
- The "BookInfo" element has the child elements "BookName" and "ISBN," one of which occurs once
- The "BookInfo" element has a "BookID" attribute, which may be omitted
- The "BookInfo" element occurs once or more times



a.

```
<!ELEMENT BookList ( BookInfo )*>
<!ELEMENT BookInfo ( BookName | ISBN )>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>
```



b.

```
<!ELEMENT BookList ( BookInfo )*>
<!ELEMENT BookInfo ( BookName , ISBN )>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>
```



c.

```
<!ELEMENT BookList ( BookInfo )+>
<!ELEMENT BookInfo ( BookName | ISBN )>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>
```



d.

```
<!ELEMENT BookList ( BookInfo )+>
<!ELEMENT BookInfo ( BookName , ISBN )>
<!ELEMENT BookName (#PCDATA)>
<!ELEMENT ISBN (#PCDATA)>
<!ATTLIST BookInfo BookID CDATA #IMPLIED>
```

Select any 1 option.

Correct answer : **c**

The following summarizes the designation method for occurrence order and number of occurrences for the element and content model:

- Occurrence Order
 - , —> Occurs in described order
 - | —> Any one of the described elements occurs
- Number of Occurrences
 - * —> Any selected number of 0 or more occurrences

- + —> Any selected number of 1 or more occurrences
- ? —> 0 or 1 occurrence
- No description —> One occurrence

The following are the default values for the attribute-list declaration:

- Default Values
 - #REQUIRED —> Required
 - #IMPLIED —> May be omitted

Given the preceding information and looking at the requirements, the description using "+" for the "BookList" element content model and "|" for the "BookInfo" element content model is the DTD definition that fulfills the requirements given.

Accordingly, c is the DTD definition that best fulfills the requirements.

Question 26

Given "XML Document" below, select the namespace to which the ItemInformation element belongs.

"XML Document"

```
<ItemList xmlns="urn:example:Item"
  xmlns:Item01="urn:example:Item01">
  <ItemInformation Id="X01-0001">
    <Item01:ItemName>XML SchemaProblemSet1</Item01:ItemName>
    <Item01:Price>1500</Item01:Price>
  </ItemInformation>
</ItemList>
```

- ☐ a. ItemInformation
- ☐ b. urn:example:Item
- ☐ c. urn:example:Item01
- ☐ d. ItemInformation element does not belong to a namespace

Select any 1 option.

Correct answer : **b**

In "XML Document," two namespaces have been declared. One is the default namespace "urn:example:Item," while the other is namespace "urn:example:Item01;" the namespace prefix is "Item01." A namespace prefix is not attached to the ItemInformation element, so the default namespace is applied.

Accordingly, the correct answer is b.

Question 27

Select which three of the following are incorrect when extending the definition of a simple type element that has been defined using XML Schema.



a.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:simpleType name="newBookInfoType">
  <xs:simpleContent>
    <xs:extension base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:extension>
  </xs:simpleContent>
</xs:simpleType>
```



b.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:simpleType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:simpleType>
```



c.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:extension base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

```
</xs:simpleContent>
</xs:complexType>
```

☐ d.

```
<xs:element name="BookInformation" type="bookInfoType" />
<xs:complexType name="newBookInfoType">
  <xs:simpleContent>
    <xs:restriction base="bookInfoType">
      <xs:attribute name="ISBN" type="xs:string" use="required" />
    </xs:restriction>
  </xs:simpleContent>
</xs:complexType>
```

Select any 3 options.

Correct answer : **a, b, d**

A simple type extension does not increase the scope of the value for the value of the type forming a base, but rather adds an attribute definition to the simple type element. Adding an attribute to a simple type element results in a complexType element; however, the content of the element is still simple type, so a simpleContent element is designated as the child element of the complexType element. Next, an extension element is designated, with an attribute definition described for that child element.

Accordingly, the incorrect definitions are a, b and d.

Question 28

Select the correct description that fits in _____ (1) _____ of "XSLT Stylesheet" to obtain "Transformation Results" when "XSLT Stylesheet" is applied to the given "XML Document".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
<ProductList>
  <ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
  <ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
  <ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
  <ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
</ProductList>
```

"XSLT Stylesheet"

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```

<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <xsl:apply-templates select="ProductList/ProductName" />
  </xsl:template>
  <xsl:template match="ProductName">
    _____ ( 1 ) _____
  </xsl:template>
</xsl:stylesheet>

```

“Transformation Results”

```

<?xml version="1.0" encoding="UTF-8"?>
<ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>

```



a.

```

<xsl:if test="@ProductID='X01-0001'">
  <xsl:copy />
</xsl:if>

```



b.

```

<xsl:if test="@ProductID='X01-0001'">
  <xsl:copy-of select="." />
</xsl:if>

```



c.

```

<xsl:if test="@ProductID='X01-0001'">
  <xsl:copy select="." />
</xsl:if>

```



d.

```

<xsl:if test="@ProductID='X01-0001'">
  <xsl:copy-of />
</xsl:if>

```

Select any 1 option.

Correct answer : **b**

The XSLT Stylesheet must be designed to exactly copy a portion of “XML Document” via “Transformation Results.” First, the xsl:if element is used to identify node where the “Product” attribute of “XML Document” is “X01-0001” in the template that is placed in _____ (1) _____. Next, the xsl:copy-of element is used

to copy an exact portion of "XML Document." Designate the node to be the subject of the copy function in the select attribute of the xsl:copy-of element. "." represents the current node.

The xsl:copy element only copies the current node; it does not copy the current node attributes or descendant nodes.

Accordingly, the correct answer is b.

Question 29

Which two of the following are correct when including "&" character within an element value?



a.

The "&" character cannot be included within an element value



b.

Enclose the "&" character in single quotes (')

<Element1>you'&me</element>



c.

Enclose the "&" character in double quotes (")

<Element1>you"&me</element>



d.

Use the predefined entity reference "&#amp;" for the "&" character

<Element1>you&#amp;me</Element1>



e.

Use a CDATA section

<Element1><![CDATA[you&me]]></Element1>

Select any 2 options.

Correct answer : **d, e**

To describe the "&" character within an element, use one of the following methods:

- Replace "&" with the predefined entity reference "&#amp;"
<Element1>you&#amp;me</Element1>

- Use a CDATA section `<Element1><![CDATA[you&me]]></Element1>`

In addition to the above, you can make use of the Unicode "&" character code ("0x0026"), using the character reference "&".

`<Element1>you&me</Element1>`

Accordingly, the correct answers are d and e.

Question 30

From the following, select which specification was drawn up for the purpose of defining XML schema.

- ☐ a. XSLT
- ☐ b. DTD
- ☐ c. XML Schema
- ☐ d. Namespaces in XML

Select any 2 options.

Correct answer : **b, c**

Given the possible answers above, the correct answers regarding specifications for conducting schema definitions are Answer b, DTD (Document Type Definition), and Answer c, XML Schema. XML schema is a specification independent of the XML 1.0 specification, while DTD has been drawn up within the XML 1.0 specification (<http://www.w3.org/TR/xml/>).

Question 31

Select which of the following is a valid XML document with respect to "XML Schema Document" below.

"XML Schema Document"

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Personal_Information" type="newPersonalInfoType" />
  <xs:complexType name="newPersonalInfoType">
```

```

<xs:complexContent>
  <xs:extension base="personalInfoType">
    <xs:sequence>
      <xs:element ref="Birth_Date" />
      <xs:element ref="Hobbies" maxOccurs="30" />
    </xs:sequence>
  </xs:extension>
</xs:complexContent>
</xs:complexType>
<xs:complexType name="personalInfoType">
  <xs:sequence>
    <xs:element ref="Name" />
    <xs:element ref="Email_Address" />
  </xs:sequence>
</xs:complexType>
<xs:element name="Name" type="xs:string" />
<xs:element name="Email_Address" type="xs:string" />
<xs:element name="Birth_Date" type="xs:string" />
<xs:element name="Hobbies" type="xs:string" />
</xs:schema>

```



a.

```

<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
  <Name>Taro Yamada</Name>
  <Email_Address>tyamada@aaa.com</Email_Address>
  <Birth_Date>1980-03-30</Birth_Date>
</Personal_Information>

```



b.

```

<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
  <Name>Taro Yamada</Name>
  <Email_Address>tyamada@aaa.com</Email_Address>
  <Birth_Date>1980-03-30</Birth_Date>
  <Hobbies>Listening to music</Hobbies>
  <Hobbies>Watching movies</Hobbies>
</Personal_Information>

```




c.

```
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
  <Birth_Date>1980-03-30</Birth_Date>
  <Hobbies>Listening to music</Hobbies>
  <Hobbies>Watching movies</Hobbies>
  <Name>Taro Yamada</Name>
  <Email_Address>tyamada@aaa.com</Email_Address>
</Personal_Information>
```



d.

```
<?xml version="1.0" encoding="UTF-8"?>
<Personal_Information>
  <Hobbies>Listening to music</Hobbies>
  <Hobbies>Watching movies</Hobbies>
  <Birth_Date>1980-03-30</Birth_Date>
  <Email_Address>tyamada@aaa.com</Email_Address>
  <Name>Taro Yamada</Name>
</Personal_Information>
```

Select any 1 option.

Correct answer : **b**

The following summarizes the content defined by the "XML Schema Document:"

- The "Personal Information" element occurs one time.
- The "Name," "Email_Address," "Birth_Date," and "Hobbies" elements are all defined as child elements of the "Personal Information" element.
- The "Name" element, "Email Address" element and "Birth_Date" element occur one time.
- The "Hobbies" element may occur from 1 to 30 times.
- The "Name," "Email Address," "Birth_Date," and "Hobbies" elements (child elements of the "Personal Information" element) occur in that order.

In this "XML Schema Document," an element is added to the complex type personalInfoType defined in the complexType element. This is called a complex type derived by extension. The following illustrates the procedures for a complex type derived by extension:

1. Designate a new data type name for the name attribute of the complexType element.

```
<xs:complexType name="newPersonalInfoType">
```

...

</xs:complexType>

2. Clearly indicate that the content of the complexContent element is a complex type, and designate the name of the data type serving as the base attribute of the extension element.

<xs:complexContent>

<xs:extension base="personalInfoType">

...

</xs:extension>

</xs:complexContent>

3. Define the order of occurrence (model group) of the added element and the element as descendant elements of the extension element.

Here, use the sequence element to make the occurrence in the defined order.

<xs:sequence>

<xs:element ref="Birth_Date" />

<xs:element ref="Hobbies" maxOccurs="30" />

</xs:sequence>

When the complex type is derived by extension, the position for the added element is after the element last defined with the original data type.

In a, the "Hobbies" element does not occur at all, and therefore is not a valid XML document. b is a valid XML document. Neither c nor d are valid XML documents, as the order of occurrence is not correct.

Accordingly, b is correct as a valid XML document.

Question 32

Select which of the following is incorrect with respect to XSLT stylesheets?



a. Namespace may be used in XSLT stylesheets



b. XSLT stylesheets must be well-formed XML documents



c. The transformation rule of the XML document that is the source for the XSLT stylesheet and the transformation process model may be described in the XSLT stylesheet



d. Only XML documents are allowed as output format for XSLT stylesheets

Select any 1 option.

Correct answer : **d**

Namespace may be used in XSLT stylesheets, and XSLT stylesheets must be well-formed XML documents. In addition the transformation rule for the source XML document and the process model may be described in the XSLT stylesheet. Besides descriptions for rules to transform to an XML document of different structure, descriptions of rules for transforming to HTML documents, CSV and other structures may also be included.

Question 33

Select which two of the following XML Schema documents correctly defines "Condition" below.

"Condition"

- Use an integer value for the "Quantity" element content
- The "Quantity" element has a "Unit" attribute, which must be described (may not be omitted)
- Use a text type value for the "Unit" attribute



a.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity" type="quantityType" />
  <xs:complexType name="quantityType">
    <xs:simpleContent>
      <xs:extension base="xs:int" >
        <xs:attribute name="Unit" type="xs:string" use="required" />
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:schema>
```



b.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity" type="quantityType" />
  <xs:complexType name="quantityType">
    <xs:attribute name="Unit" type="xs:string" use="required" />
  </xs:complexType>
</xs:schema>
```



c.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity">
    <xs:complexType>
      <xs:simpleContent>
        <xs:extension base="xs:int" >
          <xs:attribute name="Unit" type="xs:string" use="required" />
        </xs:extension>
      </xs:simpleContent>
    </xs:complexType>
  </xs:element>
</xs:schema>
```



d.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="Quantity">
    <xs:complexType>
      <xs:attribute name="Unit" type="xs:string" use="required" />
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Select any 2 options.

Correct answer : **a, c**

The "Condition" in the question above shows a "Quantity" element with an integer value content, and a "Unit" attribute. In this case, use a simple type extension to add a "Unit" attribute to the "Quantity" element. Use the element element to define the "Quantity" element as a unique type. The simple type extension is handled as a complex type; accordingly, use the complexType element as well as the simpleContent element to show that the type content is simple type. Describe "xs:int" as the base attribute of the extension element that extends the type, and describe the "Unit" attribute as the child element. Because the "Unit" attribute data type is text type, use "xs:string" for the type attribute, and "required" for the use attribute, since this cannot be omitted.

You can also describe a complexType element as the child element of the element element, without designating the element element data type.

Accordingly, the correct answers are a and c.

Question 34

Select which two of the following are a well-formed XML document.



a.

```
<item color="white" color="yellow">Paint</item >
```



b.

```
<item color='red' price="100"/>
```



c.

```
<item color="red"
price="100">
Paint
</item>
```



d.

```
<item color="blue">
Paint
</item price="100">
```

Select any 2 options.

c	c	a	b	d	d
a			d	d	c
a	a			d	d
b	a	b			c
a	b	c			b
	d	a		c	d
	a	c	a		c
		b	c		a
a			d	c	b
a	b		d	b	
		d	e		b
c		b	d	a	
c					

Correct answer : **b, c**

Since two color attributes are described in a, it is not a well-formed XML document. b and c are well-formed XML documents. Quotes used to describe an attribute value can either be single quotes or double quotes. Since a price attribute is described in the end tag for d, it is not a well-formed XML document. Accordingly, the correct answers are b and c.

Question 35

Select which of the following is the correct XSLT stylesheet to output "Transformation Results" sorted by the Password attribute value for the given "XML Document".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
<UserList>
  <UserID Password="xxxxxx" Delete="1">User01</UserID>
  <UserID Password="zzzzzz" Delete="0">User02</UserID>
  <UserID Password="xyzxyz" Delete="0">User03</UserID>
  <UserID Password="yyyyyy" Delete="0">User04</UserID>
</UserList>
```

"Transformation Results"

User01/User03/User04/User02/



a.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="text" />
  <xsl:template match="/">
    <xsl:sort select="@Password" data-type="text" />
    <xsl:apply-templates select="UserList/UserID" />
  </xsl:template>
  <xsl:template match="UserID">
    <xsl:value-of select="." /><xsl:text>/</xsl:text>
  </xsl:template>
</xsl:stylesheet>
```



b.

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="text" />
```

```

<xsl:template match="/">
  <xsl:apply-templates select="UserList/UserID" />
  <xsl:sort select="@Password" data-type="text" />
</xsl:template>
<xsl:template match="UserID">
  <xsl:value-of select="." /><xsl:text>/</xsl:text>
</xsl:template>
</xsl:stylesheet>

```



c.

```

<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="text" />
  <xsl:template match="/">
    <xsl:apply-templates select="UserList/UserID">
      <xsl:sort select="@Password" data-type="text" />
      </xsl:apply-templates>
    </xsl:template>
    <xsl:template match="UserID">
      <xsl:value-of select="." /><xsl:text>/</xsl:text>
    </xsl:template>
  </xsl:stylesheet>

```



d.

```

<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="text" />
  <xsl:template match="/">
    <xsl:apply-templates select="UserList/UserID" />
  </xsl:template>
  <xsl:template match="UserID">
    <xsl:sort select="@Password" data-type="text">
      <xsl:value-of select="." /><xsl:text>/</xsl:text>
    </xsl:sort>
  </xsl:template>
</xsl:stylesheet>

```

Select any 1 option.

Correct answer : **c**

Use the `xsl:sort` element to sort the output order using element or attribute values. Use XPath expression to designate the node that holds the value that is the sort key for the `select` attribute of the `xsl:sort` element, and designate either "text" or "number" as the data-type attribute. Sort will be conducted by character if "text" is designated, and by number when "number" is designated. If the data-type attribute is omitted, sorting will be performed by character. The `order` attribute can be designated as either ascending or descending, and will default to ascending if omitted.

The `xsl:sort` element is described as the child element of the `xsl:apply-templates` element or the `xsl:for-each` element.

Accordingly, the correct XSLT stylesheet is .c

Question 36

Select which two of the following are correct description method for an XML element.

- ☐ a. A child element cannot have the same name as a parent element
- ☐ b. Only one root element may be described in a single XML document
- ☐ c. An attribute cannot be designated for an empty element
- ☐ d. A numeral cannot be used as the first character in an element name

Select any 2 option.

Correct answer : **b, d**

Numerals, periods, and hyphens cannot be used as the first character for element names, attribute names. The correct answers are b and d.

Question 37

Select which of the following is a correct XML Schema definition if you must designate an integer less than or equal to 0 as the content of the "Discount_Amount" element.

Assume that the XML Schema namespace prefix is "xs".

- ☒ a. `<xs:element name="Discount_Amount" type="xs:negativeInteger" />`

- ☐ b. `<xs:element name="Discount_Amount" type="xs:positiveInteger" />`
- ☐ c. `<xs:element name="Discount_Amount" type="xs:"nonNegativeInteger" />`
- ☐ d. `<xs:element name="Discount_Amount" type="xs:nonPositiveInteger" />`

Select any 1 option.

Correct answer : **d**

Use "nonPositiveInteger type" to express an integer less than or equal to 0 for an embedded simple type.

Accordingly, d is the correct definition.

Question 38

The following sentences describe characteristics of XML schema as compared to DTD. Select which of the following is not correct.

- ☐ a. Since the specification is simple, using XML schema rather than DTD allows for shorter XML statements when defining the same schema structure.
- ☐ b. XML schema is a well-formed XML document.
- ☐ c. XML schema provides for various data types, including date type, integer type, etc.
- ☐ d. XML schema is compatible with XML namespace.

Select any 1 option.

Correct answer : **a**

While DTD does involve simple descriptions, it has several limitations, including not conform to XML namespace, not being an XML grammar statement, and not able to define detailed data types. Recently, XML schema has come to be used more in practice.

Question 39

Select which of the following is the correct transformation result when "XSLT Stylesheet" is applied to the given "XML Document".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
<UserList>
  <UserID Password="xxxxxx" authority="administrator">User01</UserID>
  <UserID Password="zzzzzz" authority="general">User02</UserID>
  <UserID Password="xyzxyz" authority="system">User03</UserID>
  <UserID Password="yyyyyy" authority="general">User04</UserID>
</UserList>
```

"XSLT Stylesheet"

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <SystemUserList>
      <xsl:apply-templates select="UserList/UserID" />
    </SystemUserList>
  </xsl:template>
  <xsl:template match="UserID">
    <xsl:if test="@authority='system'">
      <UserID><xsl:value-of select="text()" /></UserID>
      <xsl:element name="authority"><xsl:value-of select="@authority" /></xsl:element>
    </xsl:if>
  </xsl:template>
</xsl:stylesheet>
```



a.

```
<?xml version="1.0" encoding="UTF-8"?>
<UserID>User03</UserID>
<authority>system</authority>
```



b.

```
<?xml version="1.0" encoding="UTF-8"?>
<SystemUserList>
  <UserID>User03</UserID>
</SystemUserList>
```



c.

```
<?xml version="1.0" encoding="UTF-8"?>
<SystemUserList>
  <authority>system</authority>
  <UserID>User03</UserID>
</SystemUserList>
```



d.

```
<?xml version="1.0" encoding="UTF-8"?>
<SystemUserList>
  <UserID>User03</UserID>
  <authority>system</authority>
</SystemUserList>
```

Select any 1 option.

Correct answer : **d**

Using an XSLT stylesheet, a text strings not in "XML Document," elements not belonging to XSLT1.0 namespace, or HTML elements can be output directly into transformation results. This XSLT stylesheet identifies the node where the value of the authority attribute of the UserID element is "system," and outputs the UserID element and the authority attribute transformed into an element. Use the `xsl:element` element to transform the authority attribute to an element, and designate the element name in the name attribute. The output order will be in the order described in the template.

Accordingly, the correct transformation result is d.

Question 40

Select which of the following is a well-formed XML document.



a.

```
<Product_Information ProductID="X01-00001" Inventory="10">
```



b.

```
<Product_Information ProductID="X01-00001" Inventory="10">
  <Product_Name>XML Certification Exam Workbook 1</Product_Name>
</Product_Information>
```



c.

```
<Product_Information ProductID="X01-00001" Inventory="10">  
  <Product_Name>XML Certification Exam Workbook 1</Product_Name>  
</Product_Information Price="3000" Tax_Category="Tax Excluded">
```



d.

```
<Product_Information ProductID="X01-00001"  
  Inventory="2007/04/01 10"  
  Inventory="2007/04/02 5" >  
  <Product_Name>XML Certification Exam Workbook 1</Product_Name>  
</Product_Information>
```

Select any 1 option.

Correct answer : **b**

For an XML document to be a well-formed document, it must meet the rules of the XML1.0 specification. These rules are summarized as follows:

- At least one element exists. Only one root element exists within a single XML document.
- A start tag is always paired with a respective end tag, in a nested structure.
- Attributes are described in a start tag.
- Several attributes may be described for a single element. However, attributes cannot be described using the same name.

...and so forth

Since a has not an end tag, it is not a well-formed XML document. b is a well-formed XML document. Because c has an attribute description in an end tag, it is not a well-formed XML document. For d, above, two "Inventory" attributes have been described; therefore, it is not a well-formed XML document.

Accordingly, only b is a well-formed XML document.

Question 41

When "XML Document" is read by an XML processor, what value does the entity reference "&food" replace? Which of the following is the correct answer?

Assume that the XML processor is able to read "food.txt."

"XML Document"

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE data [
<!ELEMENT data (#PCDATA|food)*>
<!ELEMENT food (#PCDATA)>
<!ENTITY food SYSTEM "food.txt">
]>
<data>I like to eat &food; </data>
```

「food.txt」

```
<?xml version="1.0" encoding="UTF-8"?>
<food>pasta</food>
```



a. food.txt



b. pasta



c.

```
<?xml version="1.0" encoding="UTF-8"?>
<food>pasta</food>
```



d. <food>pasta</food>

Select any 1 option.

Correct answer : **d**

The contents of an external file can be imported in an XML document using an entity declaration. If the content of the external file is described in text, any content is acceptable; however, if the external file content includes tags, the rules for well-formed documents must be followed. A text declaration may be described in order to designate the character encoding for the external file.

The "&entityname" portion in the XML document is exchanged for the external file content (except for the text declaration portion)

Accordingly, the correct answer is d.

Question 42

Which two of the following are correct description when double quote (") is included in an attribute value?



a.

Enclose the attribute value in single quotes

```
<Element1 Attribute1=' "Value 1" ' />
```



b.

Enclose the attribute value in double quotes

```
<Element1 Attribute1=" "Value 1" " />
```



c.

Replace the double quote (") with the predefined entity reference """;

```
<Element1 Attribute1="&quot;Value1&quot;" />
```



d.

Since double quote (") is defined as characters that enclose the attribute value, they cannot be used as an attribute value

Select any 2 options.

Correct answer : **a, c**

To describe double quotes (") as an attribute value, use any of the following methods:

- Enclose the attribute value in single quotes `<Element1 Attribute1=' "Value1" ' />`
- Replace double quotes (") with the predefined entity reference """; `<Element1 Attribute1=""Value1" />`

In addition to the above, you can also make use of the Unicode double quote character code "0x0022", using the character reference """.

```
<Element1 Attribute1="&#x22;Value1" />
```

Accordingly, the correct answers are a and c.

Question 43

Select which of the following is correct as a definition adding a "Mobile" element to the "Personal_Information" element defined in the given "XML Schema Document".

"XML Schema Document"

```
<xs:element name="Personal_Information" type="personalInfoType" />
<xs:complexType name="personalInfoType">
  <xs:sequence>
    <xs:element ref="Name" />
    <xs:element ref="Date_of_Birth" />
    <xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
  </xs:sequence>
</xs:complexType>
<xs:element name="Name" type="xs:string" />
<xs:element name="Date_of_Birth" type="xs:string" />
<xs:element name="Hobbies" type="xs:string" />
```



a.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:restriction base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Mobile" />
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```



b.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:restriction base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Name" />
        <xs:element ref="Date_of_Birth" />
        <xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
        <xs:element ref="Mobile" />
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
```

```
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```



c.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:extension base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Mobile" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```



d.

```
<xs:element name="Personal_Information" type="newPersonalInfoType" />
<xs:complexType name="newPersonalInfoType">
  <xs:complexContent>
    <xs:extension base="personalInfoType">
      <xs:sequence>
        <xs:element ref="Name" />
        <xs:element ref="Date_of_Birth" />
        <xs:element ref="Hobbies" minOccurs="1" maxOccurs="30" />
        <xs:element ref="Mobile" />
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
<xs:element name="Mobile" type="xs:string" />
```

Select any 1 option.

Correct answer : **c**

First, designate the name of the new complex type using the name attribute of the complexType element to define the complex type extension. Designate for the child element the complexContent element that shows the element content is a complex type. Since this is an extension, designate the extension element, describe the model group as the child element, and describe the element to be added as the model group child element. If an attribute is to be added, describe the attribute definition after the model group.

Accordingly, c is the correct definition.

Question 44

Select which of the following correctly describes the purpose of using XML namespace.

- ☐ a. Defines the XML document data structure.
- ☐ b. Performs operations on XML Data from the application.
- ☐ c. Transforms XML documents to HTML documents.
- ☐ d. Avoids having conflicting elements of the same name but different meaning in a single XML document.

Select any 1 option.

Correct answer : **d**

Elements having the same name may overlap when using multiple XML vocabularies developed within an industry in a single XML document. In such cases, XML namespace is used to avoid conflicts.

Question 45

Select which of the following is the correct value for the ATT attribute when the following XML document is read by an XML processor?

"XML Document"

```
<?xml version="1.0"?>
<!DOCTYPE config [
<!ELEMENT config (name, user)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT user (#PCDATA)>
<!ATTLIST config ATT CDATA "FALSE">
]>
<config ATT="TRUE">
  <name>test.ini</name>
```

```
<user>taro</user >  
</config>
```

- ☐ a. NULL value
- ☐ b. "TRUE"
- ☐ c. "FALSE"
- ☐ d. None of the above; throws an error

Select any 1 option.

Correct answer : **b**

With the attribute list declaration (ATTLIST), the default value when the ATT attribute is omitted is "FALSE;" however, in this example, it is clearly designated that ATT="TRUE" within the XML document. Therefore, the ATT attribute value is "TRUE."

Accordingly, the correct answer is b.

Question 46

Given "XML Document" below, select the namespace to which the BirthDay element belongs.

"XML Document"

```
<List xmlns="urn:example:Data"  
  xmlns:Data01="urn:example:data01">  
  <Data01:data>  
    <Name age="30">TaroYamada</Name>  
    <BirthDay xmlns="">1977-03-19</BirthDay>  
  </Data01:data>  
</List>
```

- ☐ a. urn:example:Data
- ☐ b. urn:example:data01

- ☐ c. urn:example:Data、urn:example:data01
- ☐ d. The BirthDay element does not belong to a namespace

Select any 1 option.

Correct answer : **d**

In "XML Document," two namespaces are declared using the List element. The first namespace is default "urn:example:data," while the second namespace is "urn:example:data01;" the namespace prefix is "Data01." Because a namespace prefix is not attached to the BirthDay element, the default namespace is applied. However, the BirthDay element is described using the start tag "xmlns="", " by means of which a "default namespace cancel" is enacted. Thus, the BirthDay element no longer belongs to a namespace.

Accordingly, the correct answer is d.

Question 47

Select the correct description that fits in _____ (1) _____ of "XSLT Stylesheet" to obtain the transformation result "X01-0001X01-0002X01-0003X01-0004" when "XSLT Stylesheet" is applied to the given "XML Document".

"XML Document"

```
<?xml version="1.0" encoding="UTF-8" ?>
<ProductList>
  <ProductName ProductID="X01-0001">XML SchemaProblemSet1</ProductName>
  <ProductName ProductID="X01-0002">XML SchemaProblemSet2</ProductName>
  <ProductName ProductID="X01-0003">XSLTProblemSet1</ProductName>
  <ProductName ProductID="X01-0004">XSLTProblemSet2</ProductName>
</ProductList>
```

"XSLT Stylesheet"

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="text" />
  <xsl:template match="/">
    <xsl:apply-templates select="ProductList/ProductName" />
  </xsl:template>
  <xsl:template match="ProductName">
    _____ ( 1 ) _____
```

```
</xsl:template>
</xsl:stylesheet>
```

"Transformation Results"

X01-0001X01-0002X01-0003X01-0004

- ☐ a. <xsl:value-of select="ProductList/ProductName/@ProductID" />
- ☐ b. <xsl:value-of select="ProductList/ProductName/ProductID" />
- ☐ c. <xsl:value-of select="@ProductID" />
- ☐ d. <xsl:value-of select="ProductID" />
- ☐ e. There is no correct template for outputting Transformation Results

Select any 1 option.

Correct answer : c

Use the xsl:value-of element to acquire the element node and attribute node values for "Transformation Results." Here, you will acquire the "ProductID" attribute node value. You can acquire the attribute node value by designating "@attribute node" in the select attribute of the xsl:value-of element.

Accordingly, the correct answer is c.

Question 48

Select which two of the following are correct with respect to the occurrence of element "a" and a child element defined by the following element type declaration. Assume child elements "w", "x", "y", and "z" are empty elements.

"Element Type Declaration"

```
<!ELEMENT a ( ( w | x )+ , ( y , z )* )>
```

☐ a.

```
<a>
```

```
<w/>
```

```
<y/>
```

<z/>

☐ b.

<a>
<w/>
<x/>
<z/>
<y/>

☐ c.

<a>
<x/>
<y/>
<z/>

☐ d.

<a>
<x/>
<z/>
<y/>

Select any 2 options.

Correct answer : **a, c**

Under this element type declaration, 1) the "(w | x)+" section defines a single occurrence for either child element w or child element x, and 2) the "(y , z)*" section defines 0 or more occurrences for child element y and child element z in the order described (child element y, child element z). The content for element a occurs in the order 1), 2). a and c fulfill the conditions for 1) and 2). b and d differ from the occurrence order for element y and element z, and are therefore erroneous.

Accordingly, the correct answers are a and c.

Question 49

Select which of the following is a valid XML document with respect to the external subset DTD file "item.dtd" below.

"item.dtd"

```
<?xml version="1.0" encoding="UTF-8"?>
<!ELEMENT ProductInformation (ProductName,Price)>
<!ELEMENT ProductName (#PCDATA)>
<!ELEMENT Price (#PCDATA)>
```



a.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
<ProductInformation>
  <Price/>
</ProductInformation>
```



b.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
<ProductInformation>
  <ProductName/>
</ProductInformation>
```



c.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
<ProductInformation>
  <ProductName>
    <Price/>
  </ProductName>
</ProductInformation>
```



d.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
<ProductInformation>
  <ProductName/>
  <Price/>
</ProductInformation>
```



e.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ProductInformation SYSTEM "item.dtd">
<ProductInformation>
<Price/>
<ProductName/>
</ProductInformation>
```

Select any 1 option.

Correct answer : **d**

In "item.dtd," the "ProductInformation" element has "ProductName" and "Price" as child elements, with the "ProductName" element and "Price" element defined so as to occur in that order. The XML document that meets this definition is d.

Accordingly, the correct answer is d.

Question 50

Select which of the following XML Schema definitions always results in the content of "ProductGenre" being "Bag".



a.

```
<xs:element name="ProductGenre"
  type="xs:string" default="Bag" />
```



b.

```
<xs:element name="ProductGenre"
  type="xs:string" fixed="Bag" />
```



c.

```
<xs:element name="ProductGenre"
  type="xs:string" use="Bag" />
```



d.

```
<xs:element name="ProductGenre"
  type="xs:string" optional="Bag" />
```

Select any 1 option.

c	c	a	b	d	d
a				d	d
c	a	a			d
d	b	a	b		
c	a	b	c		
b		d	a	c	d
	a	c	a		c
		b	c		a
a			d	c	b
a	b		d	b	
		d	e		b
c		b	d	a	
c			b	c	
c		b		d	d
a	d	b	d	a	
c		c	d	b	d
c	a		c		d

Correct answer : **b**

The name attribute and type attribute can be designated in the element element, as well as the default attribute or the fixed attribute; however, the use attribute or optional attribute cannot be designated. The default attribute is used to designate a default value. If the element is an empty element, the value designated by the default attribute is applied. In the case where element content has been designated, the designated value is applied. On the other hand, the fixed attribute is used to designate a fixed value. As with the default attribute, if the element is an empty element, then the value designated by the fixed attribute is used; however, if the element content is to be designated, then the same value as that of the fixed attribute must be designated. The default attribute and the fixed attribute cannot be designated at the same time.

Accordingly, the correct answer is b.

Q-1)

```
import javax.servlet.http.*;

public class SessionListener implements HttpSessionListener

{

line1--    public void sessionCreated() {

            System.out.println(" Session Created: ");

        }

line 2--    public void sessionDestroyed() {

            System.out.println(" Session Destroyed:");

        }

    }
```

which one is wrong (check box):

- (1) line one :method does not contain correct argument
- (2) line two: method does not contain correct argument
- (3) import statement does not implement HttpSessionListener interface
- (4) all methods of HttpSessionListener should not implement in this code

ANS:

according to me option 1 and 2 both wrong

because correct syntax is:

```

public class SessionListener implements HttpSessionListener
{
    public void sessionCreated(HttpSessionEvent event) {
        System.out.println(" Session Created: ");
    }
    public void sessionDestroyed(HttpSessionEvent event) {
        System.out.println(" Session Destroyed:");
    }
}

```

(Q-2)

```

<%@page contentType="text/html" %>

<html>

<body>

<%! int a=6;%>    //line--4

<% int b=8;%>     //line--5

result <%=a*b;%>  //line--6

</body>

</html>

```

options:

(1)line 4 is not correct syntax

(2)line 5 is not correct syntax

(3)code compile successfully and display 48

(4)line 6 is not correct syntax

Answer----4

(Q--3)

purpose of JSP Expression:

options:

(1)Declare variables;

(2)write block of java code

(3)print something on screen

(4)import java class and other jsp file ,html page

Answer:

3

(Q--4)

which one is correct:

(1)you can override init() method to set on init param

(2)you can override init() method to clean up database connection

(3)you can override init() method to fetch init param & execute initial code

(4)you can override init() method but you should not do

Answer:---3

(Q--5)import attribute of page directive use :

(1)to import other jsp page and other html file

(2)to import java class & package

(3)to import taglib and other custom tag

(4)any one of the above

Answer:2(but not confirm;;;)

--Pankaj please confirm it

(Q--6)

you are employee of ABC company & your client has dissabled cookie what u will do:

(1)you will use URL rewriting

(2)you ignore and leave on container to decide it(container take care it)

(3)you enable session tracking management for JSP pages if the client has disabled cookies

(4)---

Answer :1

(Q--7) which of the following method is over- ridden

(1)JSPInit()

(2)JSPDestroy()

(3)_JSPService()

(4) none of these

Answer: 1 & 2 but radio button was given so i am confuse , please confirm it

(Q--8) Which of the following correctly defines JSP technology ?

(1) JSP page is a text-based document that describes how to process a request to create a response.

(2) JSP page is a text-based document that describes how to process a to response create a request.

(3) JSP page is a xml-based document that describes how to process a request to create a response.

(4) JSP page is a xml-based document that describes how to process a to response create a request.

Answer:I am confused in option 1 & 2 plz check it

(Q--9)

Your web application requires the ability to load and remove web files

Which two HTTP methods are used to perform these actions? (Choose two.)

1. PUT
2. POST
3. DELETE
4. REMOVE
5. DESTROY

answer---1 & 3

(q--10) question on jsp tag <jsp:setProperty > set bean with bean name is employeeName & bean value is 10

which is employeeId in int

Select Two:

- (1) <jsp:setproperty name="employeeName " property="*/>
- (2) <jsp:setbean name="employeeName " property="employeeid" value =10/>
- (3) <%beanobject.setEmployeeId(int id);%>
- (4) <%beanobject.setEmployeeId(String id);%>

answer ---2 & 3

while other questions are from previous question bank

All the best my dear friends....

these questions are enough for exams

1 If a tag handler needs to evaluate its body more than once, which interface should it implement?

Marks: 1

- Answer:
- ☒ a. BodyTag
 - ☐ b. IterationTag
 - ☐ c. Tag
 - ☐ d. IterationEvalTag
 - ☐ e. TagLib

2 What is the relationship among Patterns?
(Choose 3)

Marks: 1

- Answer:
- ☒ a. Patterns give you hint to solve a problem effectively
 - ☒ b. One pattern may lead to another
 - ☐ c. Patterns are not methods or framework
 - ☐ d. Pattern is a programming language
 - ☒ e. Patterns are discoverable and documentable

3

Which of the following statements about session attributes are TRUE? (Choose 3)

Marks: 1

- Answer: ☒ a. The return type of `HttpSession.getAttribute (String)` is `String`
- ☐ b. Calling `setAttribute ("keyA", "value")` on an `HttpSession` which already holds a value for the key `keyA` will cause the previous value for this attribute to be replaced with the `String` value `B`
- ☐ c. The return type of `HttpSession.getAttribute (String)` is `Object`
- ☐ d. Attributes bound into a session are available to any other servlet that belongs to the same `ServletContext`
- ☐ e. Calling `setAttribute ("keyA", "value")` on an `HttpSession` which already holds a value for the key `keyA` will cause an exception to be thrown

4

Which of the following statements about `HttpSession` objects in distributed environments are TRUE? (Choose 2)

Marks: 1

- Answer: ☐ a. When a session is moved from one JVM to another, appropriately registered `HttpSessionBindingListener` objects will be notified
- ☐ b. When a session is moved from one JVM to another, appropriately registered `HttpSessionActivationListener` objects will be notified
- ☐ c. When a session is moved from one JVM to another, attribute values that implement `java.io.Serializable` will be transferred to the new JVM
- ☐ d. When a session is moved from one JVM to another, any attributes stored in the session will be lost

5 Which class in java servlets is protocol independent?

Marks: 1

- Answer: ☐ a. HttpServletRequest
☐ b. HttpServlet
☒ c. GenericServlet
☐ d. None of the listed options

6 Which of the following type of object can store attributes?

Marks: 1

- Answer: ☐ a. HttpServletRequest
☐ b. RequestDispatcher
☐ c. ServletConfig
☐ d. ServletResponse

7 Which of the following are HTML lists? (Choose 3)

Marks: 1

- Answer: ☐ a. Numbered List
☐ b. Unordered List
☐ c. Ordered List
☐ d. Bulleted List
☐ e. Definition List

8 Which of the following option is equivalent to following jsp declaration?
<int count=5; %>

Marks: 1

- Answer: ☐ a. <jsp:declaration>int count =5;</jsp:declaration>
☐ b. None of the listed options
☐ c. <% int count = 5; %>
☐ d. <%= (int count=5)%>



9 Which tag is used to insert external style sheet to HTML document?

Marks: 1

- Answer:
- ☒ a. in head tag
 - ☐ b. Include <LINK rel="stylesheet" title="compact" href="small-base.css" type="text/css"> within the Head tag
 - ☐ c. Include <LINK rel="stylesheet" title="compact" href="small-base.css" type="text/css"> within the Body tag
 - ☐ d. in top of the html document

10 Which of the following options are potential legal lines of JSP source? (Choose 2)

Marks: 1

- Answer:
- ☐ a. <jsp:getProperty name="beanName1" property="<%=propName%>" />
 - ☐ b. <% String myValue = "myValue"; %>
<jsp:setProperty name="beanName1" property="soleProp" value="<%=myValue%>" />
 - ☐ c. <% String beanName = "beanName3"; %>
<jsp:useBean id="<%=beanName3%>" class="a.b.MyBean" />
 - ☐ d. <jsp:useBean id="beanName1" class="a.b.MyBean" type="a.b.MyInterface" />
 - ☐ e. <% String className = "a.MyBean"; %>
<jsp:useBean id="beanName2" class="<%=className%>" />

0:36:60

11 Which of the following function call provide information about initialization parameters that are applicable to an entire web application? (Choose 2)

Marks: 1

- Answer:
- ☐ a. ServletContext.getInitParameters ()
 - ☐ b. ServletContext.getInitParameterNames ()
 - ☒ c. ServletContext.getInitParameter (String)
 - ☒ d. ServletConfig.getInitParameters ()

12

Consider the following JSP code:

Marks: 1

```
<html>
  <head><title>Simple JSP</title></head>
  <body>
    <% int x = 5; int y = 10; %>
    <%! int x = 7; %>
    <%! int y = 3; %>
    <% out.println(x+y); %>
  </body>
</html>
```

What will be the output of the JSP page?

- Answer: ☒ a. 15
☐ b. A compilation error will occur
☐ c. 10
☐ d. A request-time error will be thrown

13

Consider the following code snippet:

Marks: 1

```
session.setAttribute ("key", value);
```

In the above code snippet, session represents the session object. Which of the following listeners are notified when the above statement is executed?

- Answer: ☐ a. HttpSessionListener and HttpSessionBindingListener
☐ b. Only HttpSessionBindingListener
☒ c. Only HttpSessionAttributeListener
☐ d. HttpSessionBindingListener and HttpSessionAttributeListener

14

A JSP custom tag can be passed as attributes. They are specified in the start tag and have the syntax `attribute_name="attribute_value"`. For each tag attribute, you must define a property and get and set methods. If a tag that inherits from the TagSupport class defines an attribute called id, then it is not necessary to define these methods (getId() and setId()). State True or False.

Marks: 1

Answer: ☐ True ☐ False

15

MIME stands for _____.

Marks: 1

- Answer: ☐ a. Multipurpose Internet Mail Extensions
☐ b. Multiple Information Mail Extensions
☐ c. Multipurpose Information Message Extensions
☐ d. Multi Information Message Extensions

0:33:13



What will be the result of executing the following JSP page?

```
<html>
  <head><title>Chapter 6 Question 6</title></head>
  <body>
    <h1>Chapter 6 Question 6</h1>
    <%! public String methodA() {
      return methodB();
    }
    %>
    <%! public String methodB() {
      return methodC();
    }
    %>
    <% public String methodC() {
      return "Question 6 Text";
    }
    %>
    <h2><%= methodA() %></h2>
  </body>
</html>
```

Answer: ☐ a. "Question 6 Text" is output to the resulting web page
☐ b. A runtime error occurs
☐ c. The web page is blank
☐ d. The text between the <h1></h1> HTML tags appears, followed by a Java stack trace
☐ e. A translation error occurs

To define the space between the border and content of a TABLE element, the padding property is used. We can use negative values for the padding property.
State True or False.

Answer: ☐ True ☐ False⁷

18 Which method of HttpServletResponse is used to redirect an HTTP request to another URL?

Marks: 1

- Answer: ☐ a. redirectHttp()
☐ b. sendRedirect()
☐ c. SendURL()
☐ d. redirectURL()

19 Factory Design pattern falls under which category of Design Patterns?

Marks: 1

- Answer: ☐ a. Structural Patterns
☐ b. Behavioural Patterns
☐ c. None of the listed option
☐ d. Creational Patterns

0:30:04

11 12 1
10 2

20 Which of the following options are required for a well-formed XML document? (Choose 3)

Marks: 1

- Answer: ☐ a. No attribute may appear more than once on the same start-tag.
☒ b. Attribute may appear more than once on the same start-tag.
☒ c. Parameter entities must not be declared before they are used.
☒ d. String attribute values cannot contain references to external entities.
☒ e. Non-empty tags must be properly nested.

0:27:44

21 When declaring a listener in the DD, which sub-elements of the <listener> element are required?

Marks: 1

- Answer: ☐ a. <description>
☐ b. <listener-class>
☐ c. <listener-name>
☒ d. <listener-type>

22 Which of the following HTTP methods are NOT considered idempotent?

Marks: 1

- Answer: ☐ a. PUT
☐ b. POST
☒ c. HEAD
☐ d. GET

23 If req is a reference of HttpServletRequest, which of the following code snippets enables req to get a binary input stream?

Marks: 1

- Answer: ☐ a. BinaryInputStream s = req.getBinaryStream();
☐ b. BinaryInputStream s = req.getInputStream();
☐ c. ServletInputStream s = req.getInputStream();
☐ d. ServletInputStream s = req.getBinaryStream();

0:26:12
11 12 1
2
3
4
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7
8
9
10

24

Marks: 1

You are creating a web application for an online product ordering system. You will be using data from several different databases and to reduce the load on the databases you have decided to use connection pooling. You have a ConnectionPool class and you want one pool for each database however you will have to connect to a variable number of databases. What pattern should you use?

- Answer: ☐ a. Singleton
☒ b. Prototype
☐ c. Builder
☐ d. Factory Method

25

Marks: 1

Which of the following options are correct for using tags in an XML document? (Choose 3)

- Answer: ☐ a. Tags are not case-sensitive and must match each other in every implementation.
☐ b. Remember the XML declaration.
☐ c. Empty tags need a slash (/) character before the closing angle bracket. For example,
 is an empty tag in XML and must be used as
.
☐ d. In XML, all attribute values are not enclosed in quotation marks.
☐ e. Tags must be nested correctly. All tags must be closed. In HTML, you are expected to close the tags, in XML it is essential to close all the tags.

26

Consider the following JavaBean:

Marks: 1

```
public class AddressBean {
    private int houseNumber;
    private String zipCode;

    public void setHouseNumber(int no) { this.houseNumber = no;}
    public void setZipCode(String zip) { this.zipCode = zip;}

    public int getHouseNumber() { return this.houseNumber;}
    public String getZipCode() { return this.zipCode;}
}
```

Assuming there is a request parameter called zip, which of the following JSP statements, when used in isolation, will actually modify any attributes of the AddressBean:

<jsp:setProperty name="address" property="zipCode" value="ABC123" />

<jsp:setProperty name="address" property="zip" value="ABC123" />

<jsp:setProperty name="address" property="zipCode" param="zip" />

<jsp:setProperty name="address" property="" />

Answer: ☐ a. One
☐ b. Three
☐ c. Two
☐ d. None of the listed options
☐ e. Four



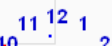
27

Which of the following scriptlets are correct? (Choose 3)

Marks: 1

Answer: ☐ a. <% int i = 0; %>
 ("Entering Loop");
 <% while (i < 5) { %>
 Looping!
 <% i++; %>
 <% } %>
☒ b. <% int j = 5; %>
 <% for (int j=0; j<10; j++) { %>
 Hello!
 <% } %>
☒ c. <% if (count != -1) { %>
 Count is not -1
 <% } %>
 <% else { %>
 Count is -1
 <% } %>
☐ d. <% int x = 10; %>
 <% int x = 5; %>
☒ e. <% for (int j=0; j<10; j++) { %>
 Count is : <%= j %>
 <% } %>

0:21:09



28 Which of the following statements are TRUE about the Java Server Page life cycle? (Choose 2)

Marks: 1

- Answer: ☐ a. You cannot override or provide a no-parameter init() method in a JSP page
☒ b. The _jspService() method is called from the generated servlet's service() method
☒ c. jspInit() is only ever called on the first request to a JSP instance
☐ d. All servlet methods are accessible from the jspInit() method
☒ e. jspDestroy() is only ever called on the last request to a JSP instance

29 Which of the following statements are FALSE about JSP scripting elements? (Choose 3)

Marks: 1

- Answer: ☐ a. It is legal to embed an expression inside a declaration
☐ b. It is illegal to embed an expression inside a scriptlet
☐ c. It is legal to include a declaration at any point in the JSP page source, provided that it appears outside of other elements
☐ d. It is illegal to embed a <%-- style comment inside another comment
☐ e. It is legal to embed an expression inside a directive

0:20:29



30 The doStartTag() and doEndTag() methods are initially declared by which interface or class?

Marks: 1

- Answer: ☐ a. JTag
☐ b. Tag
☐ c. Taglib
☐ d. TagSupport
☐ e. TagSupportlib

0:20:16

11 12 1

Imp questions in JSP and Servlets

1. Syntax of <c:url>
2. Where library descriptor file stored?
 - a. META-INF/tlds
 - b. META-INF/

c. **WEB-INF/**

d. WEB-INF/tlds

3. True or false $\{8/0\}=\text{infinity}$ —Ans:true

4. `<pre:tag1>`

`<%=name%>`

`</pre:tag1>`

a. jsp

b. Tagdependant

c. Empty

d. Scriptless

5. Your servlet class extends.....

a. **HttpServlet**

b. Servlet

c. GenericServlet

6. Which implicit object is used unique identifier user....

a. Request

b. Response

c. Application

d. **Session**

7. How you can set session timeout for 2 minutes??

Answer:

a. `<session-timeout>2</session-timeout>`

b. `Session.setMaxInactiveSession(120);`

8. Which listener is used when session is created??

Answer:HttpSessionListner

9. Which listener attribute is used for listener tag??

Answer: <listener-class>

10. Which used for print el \${var}

Answer : <c:url value="" ">

11. Choose the right

Answer : a. <jsp:include page="">

b. <%@ include file="" %>

12. <jsp:setproperty> syntax

13. Jsp lifecycle...

14. Translation and compilation is done at..

a. Execution

b. Deployment

c. Undeployment

d. None of the above

15. Which is used when cookies not used in session management?

Answer: url rewriting not cookies

16. Which is used to extract the values of request parameter address?

Answer: \${param.address}

17. Feature not contained in container

a. Servlet life manager

b. Session management

c. Application controller

d. Multithreading support

18. Question on synchronization

19. One program of session to display output

20. . You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page. This is configured as a context parameter in the deployment descriptor:

```
<context-param>
  <param-name>footerEmail</param-name>
  <param-value>joe@estates-r-us.biz</param-value>
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

21. Select two options to retrieve first value in request variable
Answer: request.getParameter("...");
Request.getParameterValues("...")[0];
22. How to access the variables fort in variable name using EL
Answer: \${name["fort"]}
\${name.fort}
23. Which header is header used to retrieve the info of "User-agent"?
Answer: response.getHeader("User-Agent");

1) $\frac{8}{0} = \text{infinity}$

true or false

2) EL expressions used for?

3) What is default scope of JSP:useBean or JSP:getproperty?

4) Session timeout is in minutes and programmatically is in Seconds

5) Request dispatchers object

request, include, forward

6) How to store java primitive types in session?

7) `<! x=4;>`

`<% y=4;%>`

Solution is `<%=x*y; %>`

Ans: syntax error at line 3..

NEW questions:

1.do get method syntax ..? ans : do get (HttpServletRequest request, HttpServletResponse response)

2.request is the object of..?

Ans: HttpServletRequest

3. EL consider null values as zero..? ans: true //not sure

4.<%! a=6%>

<%b=3%>

<%a=5%>

What is the result of <%=a*b%>

Ans: 15

5.how will u send cookie in response..?

Ans: response.addCookie(new Cookie(" ", " "))

6.where is the <servlet-name> element is present in DD.

Ans: in <servlet> tag and in <servlet-mapping> tag

7. which methods can be overridden in JSP..?

Ans: JSPinit(); and JSPdestroy();

8. if servlet class implements single thread model then what will happen..?

Ans: only one thread will run for servlet

9. if session variable s is not in session and \${true and s[0]}...? Ans: false [bcoz EL will not throw any Null Pointer exception, it will consider it as 0 or False]

10. `httpSession session= request.getSession(true);`

`Session.setAttribute(" ", " ")`

`setMaxInactiveSession(0);`

`if(session.is New())`

`{`

`-----//getAttribute...`

`}`

`Else`

`{`

`-----`

`}`

Ans: nothing will display, session will expire.... // not sure

11.

Ans: 1. Session timeout set in DD is in minute..

2. Session timeout set in programmatically is in seconds

12. question on custom tag..

13. what is the return type of getattribute method..? ans: object

14. one question was that there were two custom tags Tag1 and Tag2 (which is extending from Tag1) of which Body content should not be empty. They have asked how we can implement these tags in our code and they have given options of different possibilities.

Ans: //Not sure just go through it once

<tag1>

<tag2>

Addsgada

</tag2>

</tag1>

15. The question is on how to set init param value=10 of a using <jsp:setProperty> ?

They have given different combination , go through syntax of <jsp:setProperty>.

16. What is the default scope of useBean?

Ans: Page //not sure

17. Go through the syntax of `<jsp:setProperty>`, `<jsp:getProperty>` and `useBean`?

18. Syntax of import file.... E.g `<%@ page import="java.util.* , java.awt.*"%>`

19. what we use for conditional check in `<c:>`

- a. Cond
- b. test
- c. check
- d. choose // may be this was option

I don't remember the complete question but Conditional check in `<c:if>` or `<c:choose>` etc....

20. question: Which are true [choose any two]

Ans:

- a. ServletConfig is one per Servlet
- B. ServletContext IS ONE PER APPLICATION

21. Which argument we pass to Servlet Init method?

Ans:

ServletConfig

1. Without cookies? -URL writing.. manual/automatic?

2. implicit objects -application, exception, PageContext

3. ServletConfig- One per Servlet, Servletcontext one per application

5. Choose the right

```
<jsp:include page="">
```

b. `<%@ include file="" %>`

6. How you can set session timeout for 2 minutes??

7. You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page. This is configured as a context parameter in the deployment descriptor:

```
<context-param>
```

```
<param-name>footerEmail</param-name>
```

```
<param-value>joe@estates-r-us.biz</param-value>
```

```
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
```

```
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

8. How to store java primitive types in session? longattribute

9. Select two options to retrieve first value in request variable

```
request.getParameter(".");
```

```
Request.getParameterValues("..")[0];
```

10. Feature not contained in container

- a. Servlet life manager
- b. JSP Session
- c. Application controller
- d. Multithreading support

11. Syntax of <c:url>

12. <! x=4;>

<% x=6 %>

<% y=4;%>

Solution is <%=x*y %>

What is the output?

13. line 4:<! x=4;>

line 5: <% y=4;%>

line 6: <%=x*y; %>

whats the output

14. map={a,1}

map={b,2}

map={c,3}

map={d,4}

string names=names

what is names[0]

15. wat is true about init-params

16.to throw exception in doEnd()

17. how to disable the scripting

18.getOutputStream() of HttpServletResponse is object of ServletInputStream/PrintWriter/etc

19.switch case for JSTL <c:when>

20. client req depends on only jsp/only servlet/both

21.if information is forwarded from one page to other..can v access all the info

22. import option is used to import html/java pkg or class/jsp page/any of the options

23.sme ques ans is implementing the singlethread interface

24. to start a servlet we need- listener

25. one more ques on listener

Imp questions in JSP and Servlets

24. Syntax of <c:url>

25. Where library descriptor file stored?

- e. META-INF/tlds
- f. META-INF/**
- g. WEB-INF/**
- h. WEB-INF/tlds

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28. Your servlet class extends.....

- d. HttpServlet**
- e. Servlet
- f. GenericServlet

29. Which implicit object is used unique identifier user....

- e. Request

- f. Response
- g. Application

h. Session

30. How you can set session timeout for 2 minutes??

Answer:

c. `<session-timeout>2</session-timeout>`

d. `Session.setMaxInactiveSession(120);`

31. Which listener is used when session is created??

Answer: HttpSessionListner

32. Which listener attribute is used for listerner tag??

Answer: <listener-class>

33. Which used for print el \${var}

Answer : <c:url value="" ">

34. Choose the right

Answer : a. <jsp:include page="" ">
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41. Question on synchronization

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43. . You have created a web application that you license to real estate brokers. The webapp is highly customizable including the email address of the broker, which is placed on the footer of each page. This is configured as a context parameter in the deployment descriptor:

```
<context-param>
<param-name>footerEmail</param-name>
<param-value>joe@estates-r-us.biz</param-value>
</context-param>
```

Which EL code snippet will insert this context parameter into the footer?

```
<a href='mailto:${footerEmail}'>Contact me</a>
<a href='mailto:${initParam@footerEmail}'>Contact me</a>
<a href='mailto:${initParam.footerEmail}'>Contact me</a>
<a href='mailto:${contextParam@footerEmail}'>Contact me</a>
<a href='mailto:${contextParam.footerEmail}'>Contact me</a>
```

Answer: C

44. Select two options to retrieve first value in request variable

Answer: `request.getParameter("...")`;
`Request.getParameterValues("...")[0]`;

45. How to access the variables fort in variable name using EL

Answer: `${name["fort"]}`
`${name.fort}`

46. Which header is header used to retrieve the info of "User-agent"?

Answer: `response.getHeader("User-Agent")`;

1) ∞

true or false

2) EL expressions used for?

3) What is default scope of JSP:useBean or JSP:getproperty?

4)Session timeout is in minutes and programmatically is in Seconds

5)Request dispatchers object

request,include,forward

6)How to store java primitive types in session?

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<% y=4;%>

Solution is <%=x*y; %>

Ans: syntax error at line 3..

NEW questions:

1.do get method syntax ..? ans : do get (HttpServletRequest request, HttpServletResponse response)

2.request is the object of..?

Ans: HttpServletRequest

3. EL consider null values as zero..? ans: true //not sure

4.<%! a=6%>

<%b=3%>

<%a=5%>

What is the result of <%=a*b%>

Ans: 15

5.how will u send cookie in response..?

Ans: `response.addCookie(new cookie(" ", " "))`

6.where is the <servlet-name> element is present in DD.

Ans: in <servlet> tag and in <servlet-mapping> tag

7.which methods can be overridden in JSP..?

Ans: `JSPinit()`; and `JSPdestroy()`;

8.if servlet class implements single thread model then what will happen..?

Ans: only one thread will run for servlet

9.if session variable s is not in session and `#{true and s[0]}...`? Ans: false [bcoz EL will not throw any Null Pointer exception , it will consider it as 0 or False]

10.`httpSession session= request.getSession(true);`

`Session.setAttribute(" ", " ")`

`setMaxInactiveSession(0);`

`if(session.is New())`

`{`

`-----//getAttribute...`

`}`

Else

```
{  
-----  
}
```

Ans: nothing will display,session will expire.... // not sure

11.

Ans: 1. Session timeout set in DD is in minute..

2. Session timeout set in programmatically is in seconds

12. question on custom tag..

13. what is the return type of getattribute method..? ans: object

14.one question was that there were two custom tags Tag1 and Tag2(which is extending from Tag1) of which Body content should not be empty. They have asked how we can implement these tags in our code and they have given options of different possibilities.

Ans: //Not sure just go through it once

```
<tag1>  
    <tag2>  
        Addsgada  
    </tag2>  
</tag1>
```

15. The question is on how to set init param value=10 of a using <jsp:setProperty> ?

They have given different combination , go through syntax of <jsp:setProperty>.

16.What is the default scope of useBean?

Ans: Page //not sure

17.Go through the syntax of <jsp:setProperty>,<jsp:getProperty> and useBean?

18. Syntax of import file.... E.g <%@ page import="java.util.* , java.awt.*"

19. what we use for conditional check in <c:>

- a. Cond
- b.test
- c.check
- d. choose //may be this was option

I don't remember the complete question but Conditional check in <c:if> or <c:choose> etc....

20. question: Which are true[choose any two]

Ans:

- a.ServletConfig is one per Servlet
- B. SERVLETCONTEXT IS ONE PER APPLICATION

21. Which argument we pass to Servlet Init method?

Ans:

ServletConfig

1. How would you retrieve the value of a header named **"User-Agent"**? (right)
 - a. String header = request.getRequestHeader("User-Agent");
 - b. String header = request.getHeader("User-Agent");
 - c. String header = request.getIntHeader("User-Agent");
 - d. String header = request.getAttribute("User-Agent")
2. The method **getWriter()** of **HttpServletResponse** returns an object of type _____ (right)
 - a. HttpServletResponse
 - b. ServletOutputStream
 - c. ServletInputStream
 - d. PrintWriter
3. Which of the following methods are not implemented by the **RequestDispatcher** interface? (right)
 - a. dispatch()
 - b. redirect()
 - c. forward()
 - d. include()
4. What is the return type of **getAttribute()** method of **HttpServletRequest**? (right)
 - a. Object
 - b. String
 - c. Attribute
 - d. None of the above
5. Which statements about session timeouts are true? (Choose all that apply.) (right)
 - a. Session timeout declarations made in the DD (web.xml) can specify time in seconds.
 - b. Session timeout declarations made in the DD (web.xml) can specify time in minutes.
 - c. Session timeout declarations made programmatically can specify time only in seconds.
 - d. Session timeout declarations made programmatically can specify time either in minutes or seconds.
6. If there are more than one text box with the same name in a form, then how will you retrieve the first value of the text box? (choose all possible options) (right)
 - a. request.getParameter("textBoxName");
 - b. request.getParameterValues("textBoxName")[0];
 - c. request.getHeader("textBoxName");

d. `request.getAttribute("textBoxName");`

7. Consider the following servlet code segment:

```
HttpSession session = request.getSession(true);  
session.setAttribute("name", "Cognizant");  
session.setMaxInactiveInterval(0);  
if (session.isNew()) {
```

```
System.out.println(session.getAttribute("name"));
} else { System.out.println(session.isNew());
}
```

What is the output of the above code segment ? (right)

- a. Displays "Cognizant" always
- b. Displays "false" always
- c. Depends on whether the session is newly created or not
- d. None of the above

8. Which of the following are valid in order to set the session timeout period as 2 minutes? (right)

- a. `<session-timeout>2</session-timeout>`
- b. `<session-timeout>120</session-timeout>`
- c. `session.setMaxInactiveInterval(2);`
- d. `session.setMaxInactiveInterval(120);`

9. How will you send a cookie as response? Which sets a cookie "name" with the value "Cognizant" in a Servlet(right)

- a. `response.setCookie("name", "Cognizant");`
- b. `response.sendCookie("name", "Cognizant");`
- c. `response.addCookie(new Cookie("name", "Cognizant"));`
- d. `response.setCookie(new Cookie("name", "Cognizant"));`

10. Which of the following are used to retrieve the value associated to the parameter name provided within the `<init-param>` tag? (right)

- a. `getServletContext().getInitParameter(paramName);`
- b. `getServletConfig().getInitParameter(paramName);`
- c. `getServletContext().getParameter(paramName);`
- d. `getServletConfig().getParameter(paramName);`

11. Which of the following are true? (right)

- a. ServletConfig is one per servlet
- b. ServletConfig is one per web application
- c. ServletContext is one per servlet
- d. ServletContext is one per application

12. Which of the following are true?

- a. Context initialization parameters can be declared using `<init-param>`
- b. `<servlet-mapping>` is a sub-element of `<servlet>`
- c. `<load-on-startup>` is a sub-element of `<servlet>`
- d. `<servlet-name>` is a sub-element of both `<servlet>` and `<servlet-mapping>`

13. Which of the following can store attributes?

- a. ServletResponse
- b. HttpServletRequest
- c. ServletContext
- d. HttpSession

14. Which **HTTP** methods are used to show the client what the server is receiving? (right)

- a. GET
- b. PUT
- c. TRACE
- d. OPTIONS

15. When declaring a listener in the DD, Which sub-elements of the <listener> element are required? (Choose all that apply.) (right)

- a. <listener-name>
- b. <listener-type>
- c. <listener-class>
- d. <listener-classname>

16. Given that request is an **HttpServletRequest**, which snippets create a session if one doesn't exist? (Choose all that apply.) (right)

- a. request.getSession();
- b. request.getSession(true);
- c. request.getSession(false);
- d. request.geNewtSession();

17. If a servlet is invoked using the **forward()** or **include()** method of **RequestDispatcher**, which methods of the servlet's request object can access that request attributes set by the container? (Choose all that apply.) (right)

- a. get_cookies()
- b. getAttribute()
- c. getRequestPath()
- d. getRequestAttribute()

18. You need to store a java long primitive attribute, called **customerOID**, into the session scope. Which two code snippets all you to insert this value into the session? (Choose two.) (right)

a.

```
long customerOID=45L;  
session.setAttribute("customerOID",new Long(customerOID));
```

b.

```
long customerOID=45L;
```

```
session.setAttribute("customerOID",customerOID);
```

c.

```
long customerOID=45L;
```

```
session.setNumericAttribute("customerOID",new Long(customerOID));
```

d.

```
long customerOID=45L;
```

```
session.setLongAttribute("customerOID",customerOID);
```

19.

```
<%! int a=6; %>
```

```
<% int a=5; %>
```

```
<% int b=3; %>
```

Result is <%= a*b %>

What is the result of the above code segment? (right)

a. Compilation error

b. Will display 18

c. Will display 15

d. None of the above

20. Which of the following are valid?

a. <% = 2*3 %>

b. <%= (8*3) %>

c. <%= 3>5 %>

d. <%= int a=3; %>

21. Which of the following attributes of page directive are invalid? (right)

a. isELIgnored

b. session

c. language

d. isScriptingEnabled

22. Which of the following is used to import a class in a JSP file? (right)

a. <% page import = " java.util.List" %>

b. <%@ import file="java.util.List" %>

c. <%@ import java.util.List %>

d. None of the above

23. Which of the following describes the JSP life cycle process best?

a. JSP page is translated to a servlet, servlet is loaded into memory, code is compiled, instance is created

b. JSP page is translated to a servlet, code is compiled, servlet is loaded into memory, instance is created.

c. JSP is compiled, JSP page is translated to a servlet, code is loaded, instance is created.

d. JSP is loaded into memory, Code is compiled, instance is created.

24. Which of the following are JSP implicit objects?

a. `pageContext`

b. `application`

c. `requestScope`

d. `exception`

25. Which of the following are valid? (right)

a. `<jsp:include page="Header.jsp"/>`

b. `<jsp:include file="Header.jsp"/>`

c. `<%@include file="Header.jsp"%>`

d. `<%@include page="Header.jsp"%>`

26. Assume a class named Employee which has a property called **"empld"** which is of type int. **"employee"** is an attribute instance of Employee. Which of the following are legal ways of setting the **empld** field to Also assume that there is a parameter called **"empld"** with the value 10 available to the jsp as a request parameter? (right)

a. `<jsp:setProperty name="employee" property="empld"/>`

b. `<jsp:setProperty property="empld" value="10"/>`

c. `<jsp:setProperty name="employee" property="*/>`

d. `<jsp:setProperty name="employee" property="empld" param="empld"/>`

27. How will you retrieve the first value of request parameter "fname"? (Choose all options that apply) (right)

a. `${param.fname}`

b. `${requestParams.fname}`

c. `${requestScope.fname}`

d. `${paramValues.fname[0]}`

28. How will you access a servlet context initialization parameter named "company-name"? (right)

a. `${init.company-name}`

b. `${init['company-name']}`

c. `${initParam["company-name"]}`

d. `${contextParam.company-name}`

29. Consider the following servlet code segment:

```
Map map = new HashMap();
map.put("a", "1");
map.put("b", "2");
map.put("c", "3");
map.put("d", "4");
request.setAttribute("map", map);
String[] names = {"a", "b", "c", "d"};
request.setAttribute("names", names);
```


What does `${map[names[0]]}` return?

- a. a
- b. Nothing will be displayed
- c. 1
- d. None of the above

30. Which of the following EL implicit objects is not a Map?

- a. requestScope
- b. initParam
- c. headerValues
- d. pageContext

31.

```
<pref:tag1>
<%= result %>
</pref:tag1>
```

Which of the following are valid for the `<body-content>` tag of `tag1`?

- a. JSP
- b. empty
- c. scriptless
- d. tag dependant

32. Using `c` to represent the JSTL library, which of the following produces the same result as `<%= var %>`? (Select one)

- a. `<c:var out=${var}>`
- b. `<c:out value=${var}>`
- c. `<c:out var="var">`
- d. `<c:expr value=var>`

33. Which attribute of `<c:if>` specifies the conditional expression? (Select one).

- a. cond
- b. check
- c. expr
- d. test

34. Which JSTL code snippet can be used to perform URL rewriting?

- a. `<a href='<c:url url="cognizant.jsp"/>'>`
- b. `<a href='<c:link url="cognizant.jsp"/>'>`
- c. `<a href='<c:url value="cognizant.jsp"/>'>`
- d. `<a href='<c:link value="cognizant.jsp"/>'>`

35. Which is the most efficient way of ensuring thread safety for session attributes which are being set and accessed in a servlet?

- a. Synchronize on the `doGet()` or `doPost()` method of the servlet

- b. Make the Servlet implement `SingleThreadModel`
- c. Synchronize on the `HttpSession` object
- d. Display a message on every web page instructing the user not to open a new browser window.

36. Which of the following are true?

- a. Making a servlet extend `ThreadSafeServlet` can ensure thread safety for all attributes set in the servlet
- b. Local variables are thread safe
- c. Servlet class instance variables are thread safe
- d. Context attributes can be set in the deployment descriptor

37. Which of the following listeners are invoked when a session is created?

- a. `HttpSessionBindingListener`
- b. `HttpListener`
- c. `HttpSessionListener`
- d. `HttpSessionAttributeListener`

38. Select the one design patterns which is a **Presentation Tier pattern**

- a. Service Locator
- b. DAO
- c. Front Controller
- d. Session façade

39. You need to restrict the number of active database connections at a time to 1. Which is the best design pattern to apply?

- a. DAO
- b. Front Controller
- c. Intercepting Filter
- d. Singleton

40. Identify model component in an **MVC** pattern

- a. JSP
- b. Data Bean
- c. `ActionServlet`
- d. Browser

41. Using multiple JSP components to construct your view is an example of

- a. ViewHelper Pattern
- b. Service Locator
- c. Pattern Proxy Pattern
- d. Composite View Pattern

42. How many times is the `init()` method called during the life of the servlet ?

- a. Only once

- b. Once for every request
- c. None if the init() method is over-ridden
- d. None

43. In Expression Language $\${8 / 0}$ – displays Infinity (state true/false)

- a. True
- b. False

44. **POST** method is considered to be idempotent method (state true/false)

- c. True
- d. False

45. You need to identify the browser type from which client request is forwarded and perform action before further processing takes place in business logic. Which is the best way to achieve this?

- a. Use a filter class (Intercepting filter pattern)
- b. Use multiple if-else conditions in your business logic
- c. Use Business Delegate pattern
- d. Use composite view pattern

- 1- What is abbreviation of jaxp?
- 2- Do we have remove attribute in enumeration?
- 3- Which method of jsp can be overridden?
a- **_jspservice()** b- _jspInit() c- jspdestroy()
- 4- Which is a w3 standard?
Ans:DOM
- 5- Syntax for creating a sequence? Without as
- 6- Which has better performance joins or subqueries?
Ans:joins
- 7- Which text is not parsed in xml?
Ans:CDATA

8-Does HTML contain program logic?

Ans : NO.

8- select (2+3*4/2-5) from dual;

10- String s1=new String("abc");
String s2=new String("abc");
System.out.println(s1.compareTo(s2)); ?0

11- StringBuffer i=new StringBuffer("welcome")
StringBuffer j=new SrtingBuffer("welcome")
If(i.equals(j))
Sop("i equals j");

```
If(i.equals(i))  
Sop("i equals i");
```

12- Integer a=new Integer(2);
Integer b=new Integer(2);
System.out.println(a==b); ?**false**

13- httpServletRequest is ____ a)HttpRequests sub interface)it's not a sub interface c)HttpServlet
HttpServletRequest is **a subinterface of ServletRequest**

14- vehicle car class a)120,120,120 b)120,60,0 c)0,0,0 d)60,60,60

15- Jsp after processing what will it return to client a)jsp b)**html** c)source servlet d)compiled servlet

16- Many users accessing lots of tables each using more than 100 lines of code.
What is the best option?

- 1.View
- 2.Index
- 3.**Stored Procedure**

17- Which of these subelement or child elements is created in the Deployment Descriptor (XML) during creation of listeners?

- 1.**<listener-class>**
- 2.<listener-param>
- 3.<listener-attribute>

```
18- try{  
int i=10;  
int j=i/0;  
return;  
}  
catch()  
{  
Sop("welcome");  
}  
SOP(j);  
What happens?
```

- 1.prints welcome
- 2.Runtime-error
- 3.**Compilation error**

19- Variable V varchar2(20)

- 1.Invalid declaration
- 2.**Global declaration**
- 3.Local Declaration

20- how to divide a page into two rows?

- a)rowspan b) colspan c)**rows="50%50%"** d)cols="50%50%"

21- why expression language is used in JSP page?

a)write java code b)import files c)**print statements** d)declare variables

22- how to disable all triggers?

ALTER TABLE *table_name* DISABLE ALL TRIGGERS;

23- form action to what attributes will be redirected to next page..

a)get b)post c)the parameter is added in httprequest d)the parameter along with submit is added to request

24- which creates container of webpage

i)**DIV** ii)Span

25- which is true about constructor?

26- whether we have to specify datatype in java Script?**S**

27- <p:data>

<%=new Date()%>

<p:data/>

What is the body of the custom tag?

a) **Scriptless** b)expression language c)JSP

28- Filters can generate auto-response : true/**False**?

29-JDBC statements are included in which package?

Java.sql....

30-Which reference object in jsp is used in Http servlet Response

a)session

b)context

c)request

d)response

31- how to import a package into JSP?

- a) **<@ page import="java.util.*">**
- b) **< @include import="java.util.*">**
- c) **< @import="java.util.*">**

32- line 1 : String string1 =new String("Hi");

line 2: String string2 =String1;

line 3: String1= new String("hello");

line 4: String2= new String("world");

In which line garbage collection takes place?

33- which is a build tool?

- a) **ANT** b)pmd c)cmd

34)how print the request address?

- a)**\${request.address}** b)**\${param.address}**

35)which of the following is a marker interface?

- a)serializable b)runnable c)**externalizable**

36)which of the following is a child element of filter?

- a)filter-class** b)display-name c)Init d)context e)config

37) a developer creates a class which he does not want anyone to inherit or modify. What should he do? Declare it as -

- 1.final
- 2.abstract
- 3.**private**

38) how will u set a constant value for a simple element

- A)fixed
- B)value

