

**What is socket {2 m}**

**Answer:- (Page 211)**

A socket is one endpoint of a two-way communication link between two programs running generally on a network.

**What jsp scriptlet {2 m}**

**Answer:- [Click here for detail](#)**

A **JSP scriptlet** is used to contain any code fragment that is valid for the scripting language used in a page.

The syntax for a scriptlet is as follows:

```
<% scripting-language-statements %>
```

**What types of web services available {3 m}**

**Answer:- (Page 489)**

❖ **Data providers**

For example, a service providing stock quotes

❖ **Business-to-business process integration**

For example, purchase orders

❖ **Enterprise application integration**

Different applications work together simply by adding a webservice wrapper

**Hidden comments in jsp{3 m}**

**Answer:- rep**

**w3c definition {3 m}**

**Answer:- (Page 488)**

W3C recently has come up with a decent definition of web services. According to W3C, “A Web service is a software application identified by a URI, whose interfaces and binding are capable of being defined, described and discovered by XML artifacts and supports direct interactions with other software applications using XML based messages via internet-based protocols”.

**What is the advantages of jsp over servlet {3 m}**

**Answer:- rep**

**What is value binding and method binding{5 m}**

**Answer:- (Page 487)**

**JSF – Value Binding**

Value binding expressions can be used inside of JSF components to:

- Automatically instantiate a JavaBean and place it in the request or session scope.
- Override the JavaBean's default values through its accessor methods.
- Quickly retrieve Map, List, and array contents from a JavaBean.
- Synchronize form contents with value objects across a number of requests.

The syntax of binding expressions is based on the JavaServer Pages (JSP) 2.0 Expression Language. In JSP, expressions are delimited with "\${}", but in JSF they are delimited with "#{}”.

**JSF – Method Binding**

Unlike a value binding, a method binding does not represent an accessor method. Instead, a method binding represents an activation method.

For example, binding an event handler to a method  
<h:commandButton .....

```
actionListener="#{customer.loginActionListener}"  
..... />
```

**JSP life cycle {5 m}**

**Answer:- rep**

**What are the two ways of read initialization parameter of a servlet {5 m}**

**What is meant of keyword transient? (2 Marks)**

**Answer:- (Page 487)**

transient keyword is used to mark a field that should not be serialized

**What are basic features of http? (2 Marks)**

**Answer:- (Page 487) [Click here for detail](#)**

- ❖ Serving static and index files, and autoindexing; open file descriptor cache;
- ❖ Accelerated reverse proxying with caching; simple load balancing and fault tolerance;
- ❖ Accelerated support with caching of FastCGI, uwsgi, SCGI, and memcached servers; simple load balancing and fault tolerance;
- ❖ SSL and TLS SNI support.

**JSP page error. (2 Marks)**

**Answer:- rep**

**Request Dispatching methods. (2 Marks)**

**Answer:- (Page 484)**

Request dispatching provides us the facility to forward the request processing to another servlet, or to include the output of another resource (servlet, JSP or HTML etc) in the response.

**For what purpose e:remove tag is used. (2 Marks)**

**Answer:- rep**

**What is significance of error page (3 Marks)**

**Answer:- rep**

**What information can be appended to URL. (3 Marks)**

**Answer:- (Page 308)**

URL rewriting provides another way for session tracking. With URL rewriting, the parameter that we want to pass back and forth between the server and client is appended to the URL. This appended information can be retrieve by parsing the URL. This information can be in the form of:

- Extra path information,
- Added parameters, or
- Some custom, server-specific URL change

**Sequential Execution and Multi Threading. (3 Marks)**

**Answer:- rep**

**Checked and Unchecked Exceptions.. (3 Marks)**

**Answer:- (Page 72)**

**Unchecked Exceptions**

- Subclasses of RuntimeException and Error.
- Does not require explicit handling

**Checked Exceptions**

- Must be caught or declared in a throws clause
- Compile will issue an error if not handled appropriately
- Subclasses of Exception other than subclasses of RuntimeException.

**JSP Navigation. (3 Marks)**

**Answer:- rep**

**What are action elements of JSP? How these are written. (5 Marks)**

**Answer:- (Page 367)**

**JSP Action Elements**

JSP action elements allow us to work with JavaBeans, to include pages at request time and to forward requests to other resources etc.

**Format**

Expressed using XML syntax

**-Opening tag <jsp:actionElement attribute="value" ..... >**

**-Body body**

**-Closing tag </jsp:actionElement>**

Empty tags (without body) can also be used like **<jsp:actionElement attribute="value" ..... >**

**Some JSP Action Elements**

To work with JavaBeans

-<jsp:useBean />

-<jsp:setProperty />

-<jsp:getProperty />

To include resources at request time

-<jsp:include />

h i

To forward request to another JSP or Servlet

-<jsp:forward />

To work with applets

-<jsp:plugin />

**What data is sent to server when user send request to server. (5 Marks)**

**Difference between page centric approach and page with bean approach. (5 Marks)**

**Answer:- (Page 411)**

**Page-Centric Approach**

A web application that is collection of JSPs. Generally this approach is followed to get started with developing web applications.

The page-centric approach has lot of draw backs such as the code becomes a mixture of presentation, business and data access logic. The maintenance and up-gradation of the application becomes a nightmare. Scaling of such kind of application is also difficult and lots of code is also get duplicated.

**Page-with-Bean Approach (MVC Model1)**

This approach is different from page-centric approach in a way that all the business logic goes into JavaBeans. Therefore, the web application is a collection of JSPs and JavaBeans. But still this approach is insufficient to separate different kind of logics.

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**3) include method of dispatcher (5 Marks)**

**Answer:- (Page 282)**

It allows a Servlet to include the results of another resource in its response. The two major differences from forward are:

- ❖ Data can be written to the response before an include
- ❖ The first Servlet which receive the request, is the one which finishes the response

It will be more cleared from the following figure. User sends a HTTPRequest to Servlet1. Servlet2 is called by Servlet1 by using include (request, response) method. The response generated by Servlet2 sends back to Servlet1. Servlet1 can also add its own response content and finally send it back to user.

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**2)main() with static and without static (3 Marks)**

**Answer:- (Page 29)**

If main is not static then the JRE have to create an object of the class in which main method is present and call the main method on that object (In OOP based languages method are called using the name of object if they are not static). It is made static so that the JRE can call it without creating an object.

Also to ensure that there is only one copy of the main method per class

**2)2 steps of painting strategy (2 Marks)**

**Answer:- (Page 187)**

Subclass JPanel

Override the paintComponent(Graphics g) method

**4)when run() method is invoked (2 Marks)**

**Answer:-**

When the start() method is invoked, the JVM creates a new thread and automatically calls the run() method and that is why a new thread gets started and not by calling run() directly.

**5)diff b/w encodeURL and encodeRedierstURI (2 Marks)**

**Answer:- (Page 317)**

encodeURL() is used for URLs that are embedded in the webpage, that the servlet generates. For example,

```
String URL = "/servlet/sessiontracker";
```

```
String eURL = response.encodeURL(URL);
```

```
out.println("<A HREF=\"\" + eURL + \"\"> ..... </A>");
```

Whereas encodeRedirectURL() is used for URLs that refers yours site is in sendRedirect() call. For example,

```
String URL = "/servlet/sessiontracker";
```

```
String eURL = response.encodeRedirectURL(URL);
```

```
Response.sendRedirect(eURL);
```

**Why is j2EE said to b multi tired application? 5 marks**

**Answer:-** [Click here for detail](#)

The J2EE platform uses a multitiered distributed application model. Application logic is divided into components according to function, and the various application components that make up a J2EE application are installed on different machines depending on the tier in the multitiered J2EE environment to which the application component belongs. The J2EE application parts are:

- Client-tier components run on the client machine.
- Web-tier components run on the J2EE server.
- Business-tier components run on the J2EE server.
- Enterprise information system (EIS)-tier software runs on the EIS server.

**What is the expression in JSP give an example? 5 marks**

**Answer:-** rep

**Why we need jsp as we already have servlet 5 marks**

**Answer:-** [Click here for detail](#)

While JSP may be great for serving up dynamic Web content and separating content from presentation, some may still wonder why servlets should be cast aside for JSP. The utility of servlets is not in question. They are excellent for server-side processing, and, with their significant installed base, are here to stay. In fact, architecturally speaking, you can view JSP as a high-level abstraction of servlets that is implemented as an extension of the Servlet 2.1 API. Still, you shouldn't use servlets indiscriminately; they may not be appropriate for everyone. For instance, while page designers can easily write a JSP page using conventional HTML or XML tools, servlets are more suited for back-end developers because they are often written using an IDE -- a process that generally requires a higher level of programming expertise.

**How does JSF provide navigation 3 marks**

**Answer:-** rep

**What are the expression language nuggets 3 marks**

**Answer:-** rep

**What is the purpose of the wait () notify () notify all methods. 3 marks**

**Answer:-** rep

**What are the disadvantages of url rewriting 3 marks**

**Answer:- (Page 308)**

The following Disadvantages of URL rewriting, are considerable: -

- ❖ What if the user bookmarks the page and the problem get worse if server is not assigning a unique session id.
- ❖ Unlike cookies, state information stored in the URL is not persistent
- ❖ This mechanism limits the client interaction with the server to HTTP GET request.

**What is impact a java bean object can produce when it is stored in an application 3 marks**

**Answer:-**

JavaBean object that is stored in Servlet Request object remain accessible for the duration of current request. In other words until you continue to forward request to another servlet/JSP the bean value would be available.

**What are java beans 2 marks**

**Answer:- (Page 356)**

A java class that can be easily reused and composed together in an application. Any java class that follows certain design conventions can be a JavaBean.

**Define web service according to W3C 2 marks**

**Answer:- rep**

**Why yield method is is used 2 marks**

**Answer:- rep**

**Can we overload main method 2 marks**

**Answer:- [Click here for detail](#)**

Sure you can. But, the only method that will get invoked when you try to run the class is the method with public static void main as the qualifier

**What are packages? and how they are organized? (5 Marks)**

**Answer:- rep**

**What are output comments in JSP? (5 Marks)**

**Answer:- [Click here for detail](#)**

A comment that is sent to the client in the viewable page source. The JSP engine handles an output comment as uninterpreted HTML text, returning the comment in the HTML output sent to the client. You can see the comment by viewing the page source from your Web browser.

***JSP Syntax***

```
<!-- comment [ <%= expression %> ] -->
```

***Example 1***

```
<!-- This is a comment sent to client on  
<%= (new java.util.Date()).toLocaleString() %>  
-->
```

***Displays in the page source:***

```
<!-- This is a comment sent to client on January 24, 2004 -->
```

**Write Five operators used in Expression Language (5 Marks)**

**Answer:- rep**

**When tread's run() method is invoked? (3 Marks)**

**Answer:- rep**

**Which listener interfaces are used to handle mouse events? (3 Marks)**

**Answer:- (Page 130)**

**MouseMotionListener interface**

- ❖ Used for processing mouse motion events
- ❖ Mouse motion event is generated when mouse is moved or dragged

MouseMotionListener interfaces is defined in JDK as follows

```
public interface MouseMotionListener {  
public void mouseDragged (MouseEvent me);  
public void mouseMoved (MouseEvent me);  
}
```

**Why client side validation is used? (3 Marks)**

**Answer:- (Page 480)**

There are two good reasons to use client-side validation:

- ❖ It's a fast form of validation: if something's wrong, the alarm is triggered upon submission of the form.
- ❖ You can safely display only one error at a time and focus on the wrong field, to help ensure that the user correctly fills in all the details you need.

**Write three types of custom tags (3 Marks)**

**Answer:- rep**

**How many types of comments are used in JSPs? (3 Marks)**

**Answer:- rep**

**Differentiate sleeping and yielding in threads (3 Marks)**

**Answer:- rep**

**Why Expression language is used? (2 Marks)**

**Answer:- rep**

**Why session tracking is used in httpServlets? (2 Marks)**

**Answer:- rep**

**EJBs and JSP/servlet run on which server? (2 Marks)**

**Answer:- (Page 439)**

EJBs and JSP/Servlets works in two different servers. As you already know, JSP and Servlets runs in a web server where as EJBs requires an application server. But, generally application server contains the web server as well.

**What are streams? (2 Marks)**

**Answer:- (Page 85)**

I/O libraries often use the abstraction of a stream, which represents any data source or sink as an object capable of producing or receiving pieces of data.

**Differentiate layers and tiers (2 Marks)**

**Answer:- (Page 435)**

- . Layers – represents the logical view of application
- . Tiers – represents physical view of application

**What is differences between getRequestDispatcher(String path) method using javax.servlet.httpServletRequest or using servletContext? (2 Marks)**

**Answer:- [Click here for detail](#)**

The getRequestDispatcher(String path) method of javax.servlet.ServletRequest interface accepts parameter the path to the resource to be included or forwarded to, which can be relative to the request of the calling servlet. If the path begins with a “/” it is interpreted as relative to the current context root.

The getRequestDispatcher(String path) method of javax.servlet.ServletContext interface cannot accepts relative paths. All path must start with a “/” and are interpreted as relative to current context root.

**Which containers use a border layout as their default layout?**

**Answer:-** [Click here for detail](#)

The Window, Frame and Dialog classes use a border layout as their default layout.

**3) What is webpage and web server? 5 marks**

**Answer:-** [Click here for detail](#)

Webpage: Webpage is a resource which can be accessible over internet and displayed in a web browser.

Web server: It is used to host the website/web application. Example: Apache Tomcat, MS IIS.

**7) how can one swap the two variables without three variables**

**Answer:-** [Click here for detail](#)

/\*Program to swap 2 values without using the temporary variable and Arithmetic operators\*/

```
class Swap
{
public static void main(String args[])
{
```

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```
int a=1;
int b=2;
System.out.println("Before swap: a="+a+"b="+b);
a=a^b;
b=a^b;
a=a^b;
System.out.println(" After swap: a="+a+"b="+b);
}
}
```

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