

**UNIT - I****PART A****1. DEFINE INTERNET .**

Network is an interconnection of systems to share data and information. Internet is network of network or collection of heterogeneous networks.

**2. WHAT IS THE USE OF IP ADDRESSES AND PORTS?**

It is very difficult to remember the IP address of each and every node. In order to avoid this problem domain names are used. Example googl.com, rediff.com etc.

**PORTS**

Ports are used in receiving and sending data to another server or client.

Example for port numbers

<b>Protocol</b>	<b>Port</b>	<b>Protocol</b>	<b>Purpose</b>
Echo	7	TCP/UDP	Echo is a test protocol used to verify that 2 machines 1. are able to connect by having one echo back the Application Layer Transport Layer (TCP, UDP) Internet layer (IP) Physical path(Ethernet, FDDI etc) other's input.
Discard	9	TCP/UDP	Discard is a less useful test protocol in which all data 2. received by the server is ignored.
FTP	21		
SMTP	25		
HTTP	80		
POP3	110		
NTP	119	Usenet	News transfer is more formally known as the Network News Transfer Protocol
RMI Registry	1099		This is the registry service for Java Remote Objects.

**3. MENTION THE DIFFERENT INTERNET ADDRESS CLASS AND IT'S RANGE.**

Internet addresses are assigned to different organizations by the Internet Assigned Numbers Authority (IANA).

ISP – Internet Service Providers gives a block addresses.

Class C address block specifies the first 3 bytes of address, for example 199.1.32. This allows room for 254 individual addresses from 199.1.32.1 to 199.1.32.254

Class B address specified only the first 2 bytes of the addresses .

There are also Class D and E addresses are used for IP multicast group.

#### **4. DEFINE FIREWALL.**

The hardware and software that sits between the Internet and the local network, checking all the data that comes and goes out is called "firewalls". The security is provided using SSL(Secure Socket Layer) in internet.

#### **5. DEFINE PROXY SERVERS**

Proxy servers are related to firewalls prevents hosts on a network from making direct connections to the outside world, a proxy server can act as a go-between. Thus a machine that is prevented from connecting to the external network by a firewall would make a request for a web page from the local proxy server instead of requesting the web page directly from the remote web server.

#### **6. WHAT IS THE USE OF HTTP PROTOCOL?**

**HTTP** is a standard protocol that defines how a web client talks to a server and how data is transferred from the server back to the client. HTTP relies heavily on two other standards.

MIME (Multipurpose Internet Mail Extensions), HTML

#### **7. WHAT IS THE USE OF MIME?(Multipurpose Internet Mail Extension)**

MIME is a way to encode different kinds of data, such as sound and text, to be transmitted over a 7-bit ASCII connection. It also lets the recipient know what kind of data has been sent, so that it can be displayed properly. MIME was originally designed to facilitate multimedia email and to provide an encoding that could get binary data past the most train –damaged mail transfer programs.

MIME is an open standard for sending multipart, multimedia data through Internet email. MIME was originally intended for email, it has become a widely used technique to describe a file's contents so that client software can tell the difference between different kinds of data.

#### **8. DEFINE URL & URN.**

##### **URL**

Uniform Recourse Locator is a way to unambiguously identify the location of a resource on the Interned.



- SGML is now an International Standards Organization (ISO) standard, specifically ISO 8879:1986.
- SGML allows the user to create various user defined tags easily without any rules.

EXAMPLE 1 – FOR PRODUCT DETAILS

```
<PRODUCT MANUFACTURER="ABC COMPANY"> -Assumed as record name
<NAME> KEY BOARD </NAME>
<TYPE> KEY BOARD </TYPE>
<PRICE> 1500 </PRICE>
</PRODUCT
```

## 12. EXPLAIN ABOUT XML – EXTENSIBLE MARKUP LANGUAGE

- Similar to SGML
- Allows the user to create any number of user defined tags.
- The value of an attribute may be enclosed in double or single quotes like this:
- `<H1 ALIGN=CENTER> THIS IS CENTERED H1 HEADING </H1>`
- STYLES can be introduced for XML program like CSS using XLS file(XML Style Sheet program)
- Here XML styles are saved with an extension of .xls (XML style sheet)
- Using .xls files various styles can be given to the data which is inside the XML program.

## 13. LIST THE STEPS FUNCTIONS OF HTTP PROTOCOL.

Standard protocol for communication between web browsers and web servers.

HTTP specifies how a client and server establish a connection, how the client requests data from the server, how the server responds to that request, and finally how the connection is closed.

HTTP 1.0 is the currently accepted version of the protocol. It uses MIME to encode data. The basic protocol defines a sequence of 4 steps for each request from a client to the server.

- Making the connection
- Making a request
- Receiving the response
- Closing the connection

## 14. WHAT IS DOMAIN & MENTION DIFFERENT TYPES OF DOMAINS

Domain is a place where information is available.

DOMAIN NAME EXTENSION

.edu – Servers that provide Educational services

.gov – About the government of a country.





MIDDLE or BOTTOM WIDTH Sets the WIDTH of a specific number of pixels or to a percentage of the available screen width.

BORDER Controls the border to be placed around the table.

CELLPADDING This attribute controls the distance between the data in a cell and the boundaries of the cell

CELLSPACING Controls the spacing between adjacent cells

COLSPAN Used to spilt the single cell to one or more columns

ROWSPAN Used to spilt the single cell to one or more rows.

EXAMPLE

```
<TABLE BORDER = 3 WIDTH = 100 HEIGHT = 200>
<TR>
<TH> Roll Number </TH>
<TH> Age </TH>
<TR>
<TR> <TD> 1 </TD> <TD 35 </TD> </TR>
</TABLE>
```

ALIGN: ALIGN = TOP, MIDDLE,BOTTOM

BORDER: Specifies the size of the border to place around the image.

WIDTH: Specifies the width of the image in pixels.

HEIGHT: Specifies the height of the image in pixels

HSPACE: Indicates the amount of space to the left and right of the image

VSPACE: Indicates the amount of apace to the top and bottom of the image.

### **19. WHAT DO YOU MEAN BY COLUMN SPANNING AND ROW SPANNING?**

Row spanning is used to merge (combine) two or more rows.

Column spanning is used to merge (combine) two or more columns.

### **20. MENTION THE DIFFERENT TYPES OF LINKS**

HTML allows linking to other HTML documents as well as images. There are 3 attributes that can be introduced in BODY tag.

LINK – Changes the default color of a Hyperlink to whatever color is specified with this tag.

ALINK – Changes the default color of a hyperlink that is activated to whatever color is specified with this tag.

VLINK – Changes the default color of a hyperlink that is already visited to whatever color is specified with this tag.







A port is a logical channel to an application running on a host. ie., The applications running on the host machines are uniquely identified by port numbers.

**28. What do you mean by well-known ports?**

Port numbers can range from 1 to 65535, however ports 1 to 1023 are reserved. These reserved ports are referred to as well-known ports because the Internet Assigned Numbers Authority publicly documents the applications that use them.

**29. What is meant by Name Resolution?**

Name Resolution is the process of mapping a hostname to its corresponding IP Address. One way to translate a hostname to an IP address is to look it up in a simple text file. The second way is the domain name service, which is a distributed database containing all registered hostnames on the Internet and their IP addresses.

**30. Define URI, URL, URN.**

- URI (Uniform Resource Identifier): It identifies an object on the Internet.
- URL (Uniform Resource Locator): It is a specification for identifying an object such as a file, newsgroup, CGI program or e-mail address by indicating the exact location on the internet.
- URN (Uniform Resource Name): It is a method for referencing an object without declaring the full path to the object.

**31. What are the components of HTTP URL?**

The components are host, an optional port, path, filename, section and query string.

**32. Define URL encoding.**

URL encoding involves replacing all unsafe and nonprintable characters with a percent sign (%) followed by two hexadecimal digits corresponding to the character's ASCII value.

**33. What are the issues of next generation IP?**

The issues to be considered in IP next generation are

- Addresses Space Growth
- Support large Global networks
- A clear way of transition from the existing IP to new IP next generation

**34. List the goals of SGML.**







GET & POST method

Web server to CGI communication

1. URL interpretation
2. CGI environment variables

CGI program to web server communication

- Parsed header
- Bypassing the server

**50. What is HTML?**

HyperText Markup Language. This is a file format, based on SGML, for hypertext documents on the Internet. It is very simple and allows for the embedding of images, sounds, video streams, form fields and simple text formatting. References to other objects are embedded using URLs. HTML is a plain text file with commands <markup tags> to tell the Web browsers how to display the file.

**51. How do you change the color of background or text in HTML?**

Include the element "bgcolor" with a color code in your body tag:

```
<BODY BGCOLOR="#ffffff" TEXT="#000000" LINK="#cc0000"
VLINK="#000066" ALINK="#ffff00">
```

**52. How do you use a picture as the background in HTML?**

Include the element "background" with the name of the graphics file:

```
<BODY BACKGROUND="gumby.gif" BGCOLOR="#ffffff" TEXT="#000000"
LINK="#cc0000" VLINK="#000066" ALINK="#ffff00">
```

**53. How do you add music to a web page?**

```
<A HREF="http://www.snowhawk.com/sounds/hvnearth.mid">Heaven on Earth</A>
```

**54. How do you align text next to a graphic in HTML?**

```
<IMG SRC="wflower.jpg" WIDTH="25" HEIGHT="25" ALIGN="top" BORDER="0"
ALT="wildflower photo"> Photo of wildflowers in Texas</A>
```

**55. How do you make a graphic a link?**

```
<AHREF="http://www.snowhawk.com/wildlife.html"><IMG SRC="leopard.jpg" WIDTH="25"
HEIGHT="25" ALIGN="top" BORDER="0" ALT="link to wildlife"></A>
```

**56. How do you make a new paragraph in HTML?**



The following alternative will also do the same things.

```
<OL TYPE = "A" <LI VALUE = "24">Xylophone<LI>Yak<LI>Zebra</OL>
```

**62. How would you insert a single word and put a square bullet in front of it?**

```
<UL TYPE="Square"><LI>Supercalifragilisticexpealidocious</UL>
```

**63. How would you insert an image file named elephant.jpg at the very top of a Web page?**

Copy the image file into the same directory folder as the HTML text file and type `<IMG SRC=>` immediately after the `<BODY>` tag in the HTML text file

**64. How would you give a Web page a black background and make all text, including links, bright green?**

Put the following at the beginning of the Web page:

```
<BODY BGCOLOR="black">
```

The following would do the same thing"

```
<BODY BGCOLOR = "#000000"
```

```
TEXT="#00FF00" LINK="00FF00" VLINK="#000000">
```

**65. How would you make an image file named texture.jpg appear as a background tile?**

```
<BODY BACKGROUND="texture.jpg"
```

```
TEXT="White" LINK="red" VLINK="blue" ALINK="black">
```

**66. How would you wrap text around the right side of an image, leaving 40 pixels of space between the image and the text?**

```
<IMG SRC="myimage.gif" HSPACE=40 VSPACE=40 ALIGN="left">Text goes here
```

**67. How could you insert exactly 80 pixels of blank space between two paragraphs of text?**

Create a small image that is all one color, and save it as nothing.gif with that color set to be transparent. Then put the following tag between the two paragraphs of text:

```
<IMG SRC="nothing.gif" WIDTH=1 HEIGHT=80>
```

**68. How would you write the HTML to draw a rule 20 pixels wide?**

```
<HR WIDTH=20>
```





**PART B**

1. Discuss the various HTML tags in detail .
2. Write short notes on the following
  - i. IMG tag
  - ii. TABLE tag
  - iii. FRAME tag
3. Write an HTML document to provide a form that collect name and telephone numbers.
4. Explain HTML forms in detail along with form elements, attributes & methods.
  - i. <form method="how to send" ACTION="URL of script">
  - ii. ...form data...
  - iii. </form>
  - iv. Form fields & attributes:
    - <TEXTAREA> element
    - <INPUT> tag: text, password, checkbox, radio, hidden, reset, submit,
  - v. button
  - <SELECT> tag
5. List any four events associated with DHTML and explain each one with an example.
6. Write the XHTML markup to create a frame with a table of contents on the left side of the window and have each entry in the table of contents use internal linking to scroll down the document frame to the appropriate subsection.
7. What are HTML tags? List the commonly used HTML commands.
8. Design a web page that allows the user to choose from a series of images and to view the image in color and grayscale.
9. Develop a html page which accepts
  - i. -Any mathematical expression
  - ii. -Evaluate the expression
  - iii. -Displays the result of the evaluation
10. How to create user interactive web pages using form objects and form elements?
11. What is HTML?List the goals of SGML. explain the various html tags to develop the web pages.
12. What are the necessities of using HTML forms?What is the use of HTML Forms? Create a HTML



- <LINK> tag
- b. 2.Embedded Styles -Style information is defined in the document head using the <STYLE> and </STYLE> tags.
  - c. 3.Inline Styles -Style information is placed inside an HTML tag and applies to all content between that tag and its companion closing tag.
4. **Define cascading.**  
Cascading refers to a certain set of rules that browsers use, in cascading order, to determine how to use the style information. Such a set of rules is useful in the event of conflicting style information because the rules would give the browser a way to determine which style is given precedence.
5. **What are the style precedence rules when using multiple approaches?**  
Inline styles override both linked style sheets and style information stored in the document head with <STYLE> tag.  
Styles defined in the document head override linked style sheets.  
Linked style sheets override browser defaults.
6. **Give the syntax to specify a characteristic in linked style sheet.**  
{Characteristic: value}  
Multiple characteristic/value pairs should be separated by semicolons.
7. **List down font characteristics permitted in style sheets.**
  - i. 1.font-family
  - ii. 2.font-size
  - iii. 3.font-weight
  - iv. 4.font-style
  - v. 5.font-variant
8. **Write a note on content positioning characteristic "Visibility".**  
Enables the document author to selectively display or conceal positioned content; Possible values are show or hide.
9. **Define scriptlets.**  
Scriptlets enable you to create small, reusable web applications that can be used in any web page. Scriptlets are created using HTML, scripting and Dynamic HTML. To include them in an HTML document use the <OBJECT> tag.
10. **What does DHTML refer?**  
DHTML refers to collection of technologies, which makes HTML documents more dynamic and interactive.
11. **What does data binding mean?**  
Data binding is DHTML feature that lets you easily bind individual elements in your document to data from another source such as database or comma delimited text file.
12. **What is meant by Plug-in?**  
A hardware or software module that adds a specific feature or service to a larger system. The idea is that the new component simply plugs in to the existing system. For example, there are number of plug-ins for the Netscape Navigator browser that enable it to display different types of audio or video messages. Navigator plug-ins are based on MIME filetypes.
13. **MENTION THE TYPES OF SCRIPTING LANGUAGES**











2. What is the advantage of client side programming?
3. List out the various client side programming languages.
4. What is java script?
5. What are the uses of Java script?
6. What is the use of prompt and confirm commands.
7. What are the various browsers to be supported .
8. Write a java script program to print first 100 numbers .
9. Write a java script program to print Armstrong numbers between 1 to 500.
10. Draw the DOM model.

### **PART B**

1. Explain the document object model architecture
2. Explain the various event handlers in java script. Give an example.
3. Write a java script program to develop the arithmetic calculator
4. Write a java script program to perform the validation process in an application programs
5. Write short notes on scripting languages.
6. What are the various java script objects? Explain each with an example.
7. How to validate the check box and check box group?
8. Explain about types of cascading style sheet? Explain with example
9. Explain the various CSS properties
10. What is html? explain the various html tags to develop the web pages.
11. What is the use of HTML Forms? Create a HTML Form page for Railway Registration Form
12. What is CSS ? List out the Various CSS Properties. Explain the various concepts of CSS properties with neat example.
13. What are the types of CSS? Explain any two with neat example.
14. Explain Dhtml.
15. Explain how Dhtml used to develop the web pages.
16. With a neat diagram write a SCRIPT PROGRAM with validation for the following (each program carries 16 marks)
  - Student Mark List
  - Inventory System
  - Employee Pay Slip generation
  - Railway Ticket Reservation
  - Online Quiz program
17. Draw form design
  - Design must have one Primary key field – always
  - check for duplication for the primary key field
  - emp- name, product- name, dept-name etc should not be blank
  - Write a function for all these validation
  - When you introduce any number field, always check it is negative or not, if it so do not accept the input value
  - For calculations always use program concept, do not ask the user to enter total, gross etc.
  - Instead through program calculate  $Gross.value = val(basic.value + hra.value + da.value)$
  - Always use val or ParseInt function when you perform calculation with numbers.
  - for avoiding too much of validation better use the following in the design itself
  - Radio button
  - Command button
  - Check box





### 3. What are Servlets?

A small program that runs on a server, the term usually refers to a Java applet that runs within a Web server environment. This is analogous to a Java applet that runs within a Web browser environment.

Java servlets are becoming increasingly popular as an alternative to CGI programs. The biggest difference between the two is that a Java applet is persistent. This means that once it is started, it stays in memory and can fulfill multiple requests. In contrast, a CGI program disappears once it has fulfilled a request. The persistence of Java applets makes them faster because there's no wasted time in setting up and tearing down the process.

#### 4. What are Applets?

A program designed to be executed from within another application. Unlike an application, applets cannot be executed directly from the operating system. With the growing popularity of OLE (object linking and embedding), applets are becoming more prevalent. A well-designed applet can be invoked from many different applications.

Web browsers, who are often equipped with Java virtual machines, can interpret applets from Web servers. Because applets are small in files size, cross-platform compatible, and highly secure (can't be used to access users' hard drives), they are ideal for small Internet applications accessible from a browser.

#### 5. What do you mean by Server-side?

Occurring on the server side of a client-server system. For example, on the World Wide Web, CGI scripts are server-side applications because they run on the Web server. In contrast, JavaScript scripts are client-side because they are executed by your browser (the client). Java applets can be either server-side or client-side depending on which computer (the server or the client) executes them.

#### 6. Explain the life cycle methods of a Servlet.

The `javax.servlet.Servlet` interface defines the three methods known as life-cycle method.

```
public void init(ServletConfig config) throws ServletException
```

```
public void service( ServletRequest req, ServletResponse res) throws ServletException, IOException
```

```
public void destroy()
```

First the servlet is constructed, then initialized with the **init()** method.

Any request from client are handled initially by the **service()** method before delegating to the **doXxx()** methods in the case of `HttpServlet`.

The servlet is removed from service, destroyed with the **destroy()** method, then garbage collected and finalized.

#### 7. What is the difference between the `getRequestDispatcher(String path)` method of `javax.servlet.ServletRequest` interface and `javax.servlet.ServletContext` interface?



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. The servlet specification defines the `<load-on-startup>` element, which can be specified in the deployment descriptor to make the servlet container load and initialize the servlet as soon as it starts up. The process of loading a servlet before any request comes in is called preloading or preinitializing a servlet.

### 13. What is the difference between `doGet()` and `doPost()`?

A `doGet()` method is limited with 2k of data to be sent, and `doPost()` method doesn't have this limitation. A request string for `doGet()` looks like the following:  
`http://www.allapllabs.com/svt1?p1=v1&p2=v2&...&pN=vN`

`doPost()` method call doesn't need a long text tail after a servlet name in a request. All parameters are stored in a request itself, not in a request string, and it's impossible to guess the data transmitted to a servlet only looking at a request string.

### 14. What is the difference between `HttpServlet` and `GenericServlet`?

A `GenericServlet` has a `service()` method aimed to handle requests. `HttpServlet` extends `GenericServlet` and adds support for `doGet()`, `doPost()`, `doHead()` methods (HTTP 1.0) plus `doPut()`, `doOptions()`, `doDelete()`, `doTrace()` methods (HTTP 1.1).

Both these classes are abstract.

### 15. What is the difference between `ServletContext` and `ServletConfig`?

**ServletContext:** Defines a set of methods that a servlet uses to communicate with its servlet container, for example, to get the MIME type of a file, dispatch requests, or write to a log file. The `ServletContext` object is contained within the `ServletConfig` object, which the Web server provides the servlet when the servlet is initialized

**ServletConfig:** The object created after a servlet is instantiated and its default constructor is read. It is created to pass.



32. Develop an HTML document to generate ballot form for an election. The votes submitted are recorded on the server by a servlet handling the form. Cookies must be used to prevent multiple votes by the same client.
33. What is DOM? Explain its usage with HTML with an example.
34. Write a servlet program to implement session tracking using HTTP session object.
35. Compare JSP with servlets.
36. Discuss the traditional methods of session tracking techniques in servlet explain with example.
37. Explain DOM. Write a Javascript Program to validate Radio Button,CHECKBOX and OPTION fields.
38. Explain the servlet life cycle model and explain javax.servlet package
39. Write a HTTP servlet program to authenticate a user and retrieve all information from a HTML registration Form and store in a given data base.
40. Explain the various Java Script objects & Host objects
41. What is DOM? Draw the detailed DOM objects structure. Explain with its usage.

## UNIT IV

### Part –A

#### 1. WHAT IS THE USE OF XML NAMESPACE?

- XML allows document authors to create custom elements.
- This extensibility can result in naming collisions (i.e. different elements that have the same name) among elements in an XML document.
- An XML namespace is a collection of element and attribute names. Each namespace has a unique name that provides a means for document authors to unambiguously refer to elements with the same name (i.e. prevent collisions).

#### 2. WHAT ARE THE USES OF XML?

- CML – Chemical Markup Language – for chemical equations
- MML - Mathematical Markup Language – for Mathematical equations and derivations.
- Used in bio medical line.

#### 3. WHAT IS THE USE OF XML?

Extensible Markup Language, derived from SGML (Standard Generalized Markup Language).

XML is widely supported open technology (i.e. non-proprietary) for electronic data exchange and storage.

XML is actually a language used to create other markup languages to describe data in a structured manner.

- XML documents contain only data, not formatting instructions, so applications that process XML documents must decide how to manipulate or display the document's data.



**4. WHAT DO YOU MEAN BY DTD IN XML?**

- DTD means Document Type Definition.
- DTD file is similar to CSS file, because DTD also contains only styles.
- DTD contains various styles which are to be applied in XML document .
- Like .CSS file .DTD file also should be linked with XML program.

Styles in XML program should be save with .xsl (Xml Style Sheet Language) extension.

**5. Define XML.**

- XML is a meta-markup language that provides a format for describing structured data. This facilitates more structured declarations of content and more meaningful search results across multiple platforms.

**6. Define DTD.**

- A DTD is a set of rules that specifies how to use XML markup. It contains specifications for each element, including what the element's attributes are, what values the attributes can take on and what elements can be contained in others.

**7. What are the XML rules for distinguishing between the content of a document and the XML markup element?**

1.The start of XML markup elements is identified by either the less than symbol (<) or the ampersand (&) character

2.Three other characters, the greater than symbol (>), the apostrophe or single quote (') and the double quotation marks (") are used by XML for markup.

3.To use these special characters as content within your document, you must use the corresponding general XML entity.

**8. What are the different XSLT elements?**

- Stylesheet
- Value-of
- For-each
- Sort
- Text

**9. What is VoiceXML?**

VoiceXML is an emerging standard for speech-enabled applications.Its XML syntax defines elements to control a sequence of interaction dialogs between a user and an implementation platform. VoiceXML uses XML text to drive voice dialogs.

**10. What is XQuery?**









that are stored as request attributes before the redirect occurs will be lost. This extra round trip a redirect is slower than forward.

### 30. What are the different scope values for the <jsp:useBean>?

The different scope values for <jsp:useBean> are

- page
- request
- session
- application

### 31. Explain the life-cycle methods in JSP?

The generated servlet class for a JSP page implements the `HttpJspPage` interface of the `javax.servlet.jsp` package. The `HttpJspPage` interface extends the `JspPage` interface which in turn extends the `Servlet` interface of the `javax.servlet` package. The generated servlet class thus implements all the methods of these three interfaces. The `JspPage` interface declares only two methods - `jspInit()` and `jspDestroy()` that must be implemented by all JSP pages regardless of the client-server protocol. However the JSP specification has provided the `HttpJspPage` interface specifically for the JSP pages serving HTTP requests. This interface declares one method `_jspService()`.

The `jspInit()`- The container calls the `jspInit()` to initialize the servlet instance. It is called before any other method, and is called only once for a servlet instance.

The `_jspService()`- The container calls the `_jspService()` for each request, passing it the request and the response objects.

The `jspDestroy()`- The container calls this when it decides to take the instance out of service. It is the last method called on the servlet instance.

### 32. What is an output comment?

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 -->
```



3. import
4. session
5. buffer
6. contenttype

**40. Define XML.**

XML stands for EXtensible Markup Language  
XML is a markup language much like HTML  
XML was designed to carry data, not to display data  
XML tags are not predefined. You must define your own tags  
XML is designed to be self-descriptive  
XML is a W3C Recommendation

**41. Define DTD.**

A Document Type Definition (DTD) defines the legal building blocks of an XML document. It defines the document structure with a list of legal elements and attributes. A DTD can be declared inline inside an XML document, or as an external reference.

**ADDITIONAL QUESTIONS**

1. Mention the rules of well-formed XML.
2. What is DTD? Explain it with example.
3. Write short notes on ASP.
4. Write short notes on JSP.
5. Explain about plug-ins.
6. Explain in detail about User Events Monitoring.
7. Discuss in detail about Oracle database
8. Explain about ADO database connectivity.
9. Explain about JDBC connectivity.
10. Write short notes on XML History
11. What are the different revolution in which XML is playing a major role?
12. What are the advantages of xml?
13. What is webservice?
14. What are all the xml language basics?
15. What is entities? Give Example.
16. What is the role of xml?
17. What are Xforms?
18. What is VoiceXML?
19. What is XPath?
20. What are the Element Naming Rules used in XML?





26. Discuss the following

i) Specify the set out development goals of XML.

ii) How is XML defined?

Give the XML syntax and structure rules.

Explain the XML components in detail.

## **UNIT V**

### **1. What is SOAP? (Simple Object Access Protocol)**

- SOAP is an XML based protocol that allows applications to easily over the internet using XML documents called SOAP message.
- A SOAP message contains an envelope, which is a structure that describes a method call.
- A SOAP message's body contains either a request or a response.
- A request message's body contains a Remote Procedure Call (RPC), which is a request for another machine to perform task.
- The RPC specifies the method to be invoked and any parameters the method takes.
- The application sends the SOAP message via an HTTP POST. A SOAP response message is an HTTP response document that contains the results from the methods call (e.g. return values, error messages.)

### **2. WHAT IS THE USE OF WEB SERVICES?**

- Web services encompass a set of related standards that can enable two computer
- The data is passed back and forth using standard protocols such as HTTP, the same protocol used to transfer ordinary web pages.
- Web services operate using open, text-based standards that enable components written in different languages and on different platforms to communicate.
- They are ready to use pieces of software on the Internet. XML, SOAP, Web Services Description Language (WSDL) and Universal Description, Discovery and Integration (UDDI) are the standards on which web services rely.
- UDDI is another XML based format that enables developers and business to publish and locate Web services on a network.

### **3. What do you mean by JDBC?**

- JDBC Part of the Java Development Kit which defines an application-programming interface for Java for standard SQL access to databases from Java programs.

### **4. Define ODBC.**

- It is a standard for accessing different database systems. There are interfaces for Visual Basic, Visual C++, SQL and the ODBC driver pack contains drivers for the Access, Paradox, dBase, Text, Excel and Retrieve databases.
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- SOAP is a simple XML-based protocol to let applications exchange information over HTTP.
- In our SOAP tutorial, you will learn what SOAP is, and how it uses XML to exchange information between applications.

## 22. DEFINE SOAP structure

**SOAP** once stood for 'Simple Object Access Protocol' but this acronym was dropped with Version 1.2 of the standard.<sup>[1]</sup> Version 1.2 became a W3C recommendation on June 24, 2003. The acronym is sometimes confused with **SOA**, which stands for Service-oriented architecture; however SOAP is different from SOA.

## 23. What is SOAP?

- SOAP stands for Simple Object Access Protocol
- SOAP is a communication protocol
- SOAP is for communication between applications
- SOAP is a format for sending messages
- SOAP communicates via Internet
- SOAP is platform independent
- SOAP is language independent
- SOAP is based on XML
- SOAP is simple and extensible
- SOAP allows you to get around firewalls

## PART B

1. EXPLAIN RPC.
2. WRITE SHORT NOTES ON JAX.
3. EXPLAIN THE CONCEPT OF WEB SERVICES.
4. EXPLAIN XML SCHEMA WITH AN EXAMPLE.
5. How to build the web applications? Explain the steps ?
6. EXPLAIN SOAP CONCEPTS.
7. What are the various session tracking mechanisms. Explain with example .
8. Develop the web page for student management system using WEB SERVICES.
9. Develop the web page for library management system using WEB SERVICES.
10. Develop the web page for railway reservation system using WEB SERVICES.
11. Explain Web Services ARCHITECTURE.
12. Consider a hospital system. Write a PHP program to consolidate and show the bill to be paid by the in-patients(Assume you own data)
13. EXPLAIN SOAP BUILDING BLOCKS.

