UNIT - III

Host Objects: Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels-Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating

Noncompliant Browsers Properties of window-Case Study. Server-Side Programming: Java Servlets- Architecture -Overview-A Servlet-Generating Dynamiccontent-Life Cycle-Parameter Data-Sessions-Cookies-URL Rewriting-Other Capabilities-Data Storage Servlets and Concurrency-Case Study-Related Technologies.

1. What is DOM?

DOM (Document Object Model) is an API that defines how JavaScript programs can access and manipulate the HTML document currently displayed by a browser. It includes the definition of the properties of *document* object, many of which are themselves objects with their own properties.

2. **List out some of the HTML intrinsic event attributes. (APRIL/MAY 2011)**

onload, onclick, ondblclick, onmousedown, onmouseup, onmousemove, onfocus, onblur, onkeypress, onkeydown, onselect, onchange, onsubmit, onreset etc.

3. What is Node object?

Every element in a document tree refers to a Node object. Some nodes of the tree are

JavaScript objects corresponding to HTML elements such *html* or *body.*

4. List out the properties of a Node object.

Properties of a Node object are nodeType

nodeName

parentNode childNodes previousSibling nextSibling attributes

5. What do you mean by *document* node?

The *document* object itself is considered to be DOM tree node with node type 9 and symbolic constant DOCUMENT_NODE and it has its own properties and methods

6. List out some possible values for the nodeType property of Node instances.

Value	Symbolic Constant	Host Object Type
1	Node.ELEMENT_NODE	Element
2	Node.ATTRIBUTE_NODE	Attr
3	Node.TEXT_NODE	Text
8	Node.COMMENT_NODE	Comment
9	Node.DOCUMENT_NODE	Document
10	Node.DOCUMENT_TYPE_NODE	DocumentType

7. List out some properties of the *document* object.

The properties of document object are DOCTYPE, TITLE, BODY, COOKIE, URL, DOMAIN, REFERRER, CREATEELEMENT(STRING), CREATETEXTNODE(STRING), GETELEMENTBYID(STRING), GETELEMENTBYTAGNAME(STRING)

8. Explain *Event* object.

In the DOM event model, when an event occurs, an instance of a host object named *Event* is created. This instance contains information about the event, including the type of event and a reference to the document node corresponding to the markup element that generated the event which is called the *event target*. The *Event i*nstance properties *type* and *target* provides this information.

9. What is the important feature of dynamic positioning? (APRIL/MAY 2008)

Dynamic positioning allows you to tell the browser exactly where to put a block of content without using tables.

10. List the possible opacity attributes of dynamic positioning. (APRIL/MAY 2008) HTML: The basic building block.

Document Object Model: The objects that make up the contents of any Web page.

JavaScript: A scripting language that can manipulate the objects.

Positioning: The placement of objects within the document.

11. What is *Event Listener?*

An Event Listener is simply a function that takes a single argument that is an instance of an *Event.* A call to the addEventListener() method on a node object associates an event listener with a type of event occurring on that node.

12. What are the types of Events?

i. HTML intrinsic events

ii. HTML Events

iii. UI Events

iv. Mutation Events

13. What do you mean by *bubbling listener?*

Bubbling listener is a listener associated with an ancestor of the target node and that was created with a call to addEventListener() and had its third argument set to *false*

e.g. ancestor.addEventListener('click",listener3,false);

14. List out some common *window* object methods.

alert(String), confirm(String), prompt(String, String), open(String, String) close(), focus(), blur(), print()

15. List out some common *window* object methods related to time.

i) setTimeout(String, Number)

ii) clearTimeout(Number)

iii) setInterval(String, Number)

iv) clearInterval(Number)

16. What is DHTML?

The combination of HTML plus JavaScript and the DOM is referred to as Dynamic HTML (DHTML), and an HTML document that contains scripting is called a *dynamic* document.

17. Define servlet.

A *servlet* is a java class that a web server instantiates when the server is started. A

particular method is called in this instance when the server receives certain HTTP requests.

18. What are servlet life cycle methods?

The methods of servlet life cycle are

INIT(), SERVICE() AND DESTROY()

19. What are servlet listener classes?

Listener classes is used to initialize a web application consisting of multiple servlets rather than a single servlet and can be created and registered with the server so that they will be called when certain event occurs, including life-cycle events.

20. What are the functions of doGet() and doPost() methods?

doGet()-Browser will append the query string it constructs to the form's action

URL and performs an HTTP GET using the resulting URL.

DOPOST() – Same query string will be constructed , but it will be passed to the server via the body of the HTTP request rather than as part of the URL.

21. Define Session.

Collection of HTTP requests, all associated with a single session ID, is known as a

session. Sessions are maintained by communication between clients and servers.

22. How the session is terminated?

By default the time interval for a session is 20 minutes.

The session can also be forced to terminate by calling invalidate() method.

The time interval for the session can be set using setMaxInactiveInterval() method.

23. **Explain cookies**. **(APRIL/MAY 2008), (APRIL/MAY 2010)**

Cookies are some little information that can be left on your computer by the other computer when we access an internet.

24. Define *cookie.*

A cookie is a name-value pair that a web server sends to a client machine as part of an HTTP response, specifically through the Set-cookie header field.

25. Explain the difference between get request and post request type.

The HTML specifications *technically* define the difference between "GET" and "POST" so that former means that form data is to be encoded (by a browser) into a URL while the latter means that the form data is to appear within a message body.

26. List out the methods of Cookie class.

Cookie, getName(), getValue(), setMaxAge()

27. Define Thread.

A ***thread*** is the Java VM's abstract representation of the processing to be performed to accomplish a particular task, possibly concurrently with other tasks.

28. Write the code to return the full URL of a document. (NOV/DEC2011)

```
<html>

<head>

<title>Javascript get url</title>

</head>

<body>

<script>

document.write(document.location.href)

</script>
```

</**body**>

</**html**>

29. How is session tracking achieved by URL rewriting? (NOV/DEC2011)

In URL rewriting the server passes a session ID by adding it to every servlet URL appearing in any page sent to the client. It involves rewriting every URL referencing the servlet in the href attribute of any anchor and the action attribute of any form output by the servlet

30. Expand the following : i) HTTP, ii) JDBC iii) URL iv) SQL

HTTP – Hyper Text Transfer Protocol JDBC- Java Data Base Connectivity URL – Uniform Resource Locator

SQL- Structured Query Language

31. List out the methods of HTTP.

doGet()

doPost() doOptions() doPut() doTrace() doDelete() doHead()