

SRM VALLIAMMAI ENGINEERING COLLEGE

SRM Nagar, Kattankulathur – 603 203.



DEPARTMENT OF INFORMATION TECHNOLOGY QUESTION BANK

SUBJECT : IT8501 Web Technology

SEM / YEAR: V Sem/ III Year

UNIT I - WEB SITE BASICS AND HTML							
Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols -The World Wide Web-HTTP request message-response message-Web Clients Web Servers. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative URLs-Lists-tables-Frames-Forms-HTML 5.0.							
PART – A							
Q.No	Questions	BT Level	Competence				
1.	List any four common browsers.	BTL1	Remembering				
2.	Define URI.	BTL1	Remembering				
3.	State the use of web server logs and list the contents of a message log.	BTL2	Understanding				
4.	List the different basic protocols used in Internet.	BTL1	Remembering				
5.	What do you mean by Relative URLs?	BTL1	Remembering				
6.	Write the functions of a Web Server.	BTL2	Understanding				
7.	Explain the way in which a DNS server resolves addresses.	BTL5	Evaluating				
8.	State the uses of Internet Protocol.	BTL2	Understanding				
9.	Write short notes on basic Internet protocols.	BTL2	Understanding				
10.	List and explain the three flavors of HTML.	BTL1	Remembering				
11.	State the function of DNS and the protocol used.	BTL3	Applying				
12.	List and explain any two HTML elements.	BTL1	Remembering				
13.	Create two rows of horizontal frames using HTML frames.	BTL6	Creating				
14.	Write HTML code to display an image.	BTL3	Applying				
15.	How will you create a password field in a HTML form?	BTL4	Analyzing				
16.	Write HTML code to create the following table, <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>W</td> <td>X</td> </tr> <tr> <td>Y</td> <td>Z</td> </tr> </table>	W	X	Y	Z	BTL6	Creating
W	X						
Y	Z						
17.	Differentiate HTML and XHTML.	BTL4	Analyzing				
18.	Explain canvas in HTML.	BTL5	Evaluating				

19.	Choose the syntax to display the following statement “I am learning Web Programming”	BTL5	Evaluating
20.	Identify how a scripting language differs from HTML?	BTL3	Applying
PART – B			
1.	(i) Explain TCP/IP in detail. (7) (ii) Explain the purpose and way of creating lists in HTML documents. (6)	BTL2	Understanding
2.	Recall in detail about Internet and World Wide Web. (13)	BTL1	Remembering
3.	Explain in detail the working of the following Internet Protocols. (i) TCP/IP (7) (ii) HTTP (6)	BTL2	Understanding
4.	(i) List and explain any four HTML elements in detail. (7) (ii) State the types of lists supported by HTML and explain them in detail. (6)	BTL1	Remembering
5.	Create a HTML document for a company home page. (13)	BTL6	Creating
6.	(i) Explain the capabilities of web client and web server. (7) (ii) Write and explain HTTP request message format. (6)	BTL4	Analyzing
7.	Explain the significance of XHTML with the help of a real time application. Write necessary code snippets. (13)	BTL5	Evaluating
8.	How do you create frames? Why do we need them? Develop an application to explain the same. (13)	BTL4	Analyzing
9.	(i) Explain the use of relative URL's with an example. (7) (ii) Explain how tables can be inserted into a HTML document with an example. (6)	BTL3	Applying
10.	(i) List any two differences between HTML respects to elements and XHTML with Also explain about the XHTML DTD. (7) (ii) Discuss on any four HTTP request methods. (6)	BTL1	Remembering
11.	Explain HTML forms in detail along with form elements, attributes and methods. Write an HTML document to provide a form that collect name and telephone numbers. (13)	BTL2	Understanding
12.	Examine the basic XHTML syntax and semantics. (13)	BTL4	Analyzing
13.	(i) Explain in detail the functions of a web server. (7) (ii) Give the structure of HTTP request and response messages. (6)	BTL3	Applying
14.	Define HTML 5.0. List and explain some of the HTML 5.0 tags with examples. (13)	BTL1	Remembering
PART – C			
1.	(i) Give the HTTP request message structure and explain it in detail. (8) (ii) List and explain the steps involved in a web based client server communication. (7)	BTL5	Evaluating

2.	(i) Explain the most significant HTML elements in detail. (8) (ii) Explain the way in which data can be presented in a tabular form using HTML. (7)	BTL5	Evaluating
3.	Develop an interactive web page for student registration using HTML form elements. (15)	BTL6	Creating
4.	Briefly discuss the HTML frame and table tags. (15)	BTL6	Creating

UNIT II - CSS AND CLIENT SIDE SCRIPTING

Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML- Style Rule Cascading and Inheritance-Text Properties-Box Model Normal Flow Box Layout-Beyond the Normal Flow-CSS3.0. Client-Side Programming: The JavaScript Language-History and Versions Introduction JavaScript in Perspective-Syntax-Variables and Data Types-Statements-Operators-Literals-Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.

PART - A

Q.No	Questions	BT Level	Competence
1.	Give the syntax of a CSS rule.	BTL2	Understanding
2.	Mention the need for cascading style sheets.	BTL3	Applying
3.	Give example for inline style sheet.	BTL2	Understanding
4.	How will you include CSS in a web site?	BTL4	Analyzing
5.	Give some advantages of using Cascading Style Sheets.	BTL2	Understanding
6.	How external style sheet is useful in web page design?	BTL4	Analyzing
7.	Write short notes on text properties in CSS with suitable example.	BTL1	Remembering
8.	What is Normal Flow Box Layout in CSS?	BTL1	Remembering
9.	List the two forms of style rules with an example.	BTL1	Remembering
10.	What is meant by DHTML?	BTL1	Remembering
11.	List the ways of positioning an element within a browser window.	BTL1	Remembering
12.	What is a JavaScript statement? Give an example.	BTL1	Remembering
13.	Explain array creation in JavaScript with example.	BTL2	Understanding
14.	List the different methods defined in document and window object of JavaScript.	BTL4	Analyzing
15.	List and explain any two JavaScript built in objects.	BTL5	Evaluating
16.	State the types of JavaScript statements with examples.	BTL3	Applying
17.	Write the JavaScript to print "Good Day" using IF-ELSE condition.	BTL5	Evaluating
18.	Write code to return the full URL of a document.	BTL6	Creating
19.	Compile the limitations of CSS.	BTL6	Creating
20.	Apply CSS to a web page with the following requirements (i) Add a background image of a submarine. (ii) Set a color to the span elements (different color for each class)	BTL3	Applying

PART – B			
1.	(i) Discuss about JavaScript debugging. (7) (ii) Explain in detail CSS border and CSS outline. (6)	BTL4	Analyzing
2.	(i) Explain any eight CSS text properties. (7) (ii) Discuss JavaScript Array object in detail. (6)	BTL1	Remembering
3.	(i) List and explain in detail various selector strings. (7) (ii) Explain the features of cascading style sheets. (6)	BTL2	Understanding
4.	(i) Write a CSS which adds background images and indentation. (7) (ii) Explain external style sheet with an example. (6)	BTL2	Understanding
5.	(i) Explain in detail the CSS Box model in detail. (7) (ii) List and explain the various positioning schemes in detail. (6)	BTL3	Applying
6.	List and describe the CSS Border Style Properties in detail with illustration. (13)	BTL1	Remembering
7.	Apply CSS to a web page with the following requirements (i) Paint the background gray (2) (ii) Paint the sidebar yellow (2) (iii) Set the artist h1 to be only uppercase (2) (iv) Set the title h2 to be uppercase-first letter (2) (v) Set a line spacing between the lines (2) (vi) Set letter spacing between the letters in each span of type instruction (3)	BTL3	Applying
8.	(i) State and explain the types of statements in JavaScript. (6) (ii) Explain how functions can be written in JavaScript with an example. (7)	BTL4	Analyzing
9.	Summarize about debugging in JavaScript. (13)	BTL2	Understanding
10.	What are the various JavaScript objects? Explain each with an example. (13)	BTL1	Remembering
11.	Show in detail about JavaScript variables and operators. (13)	BTL1	Remembering
12.	Write the registration form for the creation of email account with all possible validations using JavaScript. (13)	BTL5	Evaluating
13.	(i) Explain the JavaScript array handling and array methods. (7) (ii) Explain the following JavaScript objects. (6) a. RegExp b. Math	BTL4	Analyzing
14.	(i) Write JavaScript to find sum of first 'n' even numbers and display the result. Get the value of 'n' from user. (7) (ii) Write JavaScript to find factorial of a given number. (6)	BTL6	Creating
PART – C			
1.	Discuss the various aspects of Normal Flow Box Layout in the context of CSS. (15)	BTL6	Creating

2.	Explain in detail about CSS3. Give the illustration for CSS3 animation. (15)	BTL5	Evaluating
3.	(i) Explain the way in which JavaScript handles arrays with example. (8) (ii) Explain how local and global functions can be written using JavaScript. (7)	BTL5	Evaluating
4.	(i) Discuss how do you use JavaScript for form validation? Develop a complete application that would include information functions to validate the user data. (10) (ii) Write short notes on JavaScript built-in objects. (5)	BTL6	Creating

UNIT III - SERVER SIDE SCRIPTING

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. Server-Side Programming: Java Servlets-Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle- Parameter Data-Sessions-Cookies-URL Rewriting-Other Capabilities-Data Storage Servlets and Concurrency- Databases and Java Servlets.

PART - A

Q.No	Questions	BT Level	Competence
1.	Define host objects.	BTL1	Remembering
2.	List the types of event listeners in DOM2.	BTL1	Remembering
3.	Assess Event Bubbling and Event Capturing.	BTL5	Evaluating
4.	What is meant by intrinsic event handling?	BTL1	Remembering
5.	List and explain any four HTML intrinsic event attributes.	BTL2	Understanding
6.	Evaluate the various levels of DOM.	BTL5	Evaluating
7.	Examine the usage of DOM style property.	BTL4	Analyzing
8.	List some of the window object properties.	BTL4	Analyzing
9.	Compose any two mouse events.	BTL6	Creating
10.	Discuss any two keyboard events.	BTL6	Creating
11.	Differentiate Client Side Scripting from Server Side Scripting.	BTL4	Analyzing
12.	Write a short note on java servlet life cycle.	BTL3	Applying
13.	List the different life cycle methods of Java Servlets.	BTL1	Remembering
14.	What is a cookie?	BTL1	Remembering
15.	What is the purpose of cookies?	BTL1	Remembering
16.	Write the purpose of URL rewriting.	BTL2	Understanding
17.	How is session tracking achieved by URL rewriting?	BTL3	Applying
18.	State the use of ServletContext object.	BTL2	Understanding

19.	Explain in brief the interaction between a web server and a servlet.	BTL2	Understanding
20.	Identify the difference between get request and post request type.	BTL3	Applying
PART - B			
1.	Explain in detail DOM event handling. Also explain with an example of creating a context menu. [Note: A context menu is one that that is shown when the user right-clicks anywhere in the document]. (13)	BTL5	Evaluating
2.	(i) Explain about the document tree in detail. (7) (ii) Explain DOM event handling in detail. (6)	BTL2	Understanding
3.	(i) List and explain the various types of document nodes. (7) (ii) Explain in detail about event object and event listeners with an example. (6)	BTL2	Understanding
4.	With a suitable example discuss about event propagation. (13)	BTL1	Remembering
5.	List the properties of mouse events associated with DOM2 with an example. (13)	BTL1	Remembering
6.	What are the various levels of DOM? Explain each of them in detail. (13)	BTL1	Remembering
7.	Make use of some of the style object in DOM to modify the elements' style. (13)	BTL3	Applying
8.	(i) Explain about architecture of servlet. (7) (ii) Explain the purpose of the following DOM method and properties, (6) a. get Element By Id b. create Element c. create Text Node d. append child e. parent Node	BTL4	Analyzing
9.	Write a servlet to illustrate the principle of Cookies and explain. (13)	BTL6	Creating
10.	Explain the Servlet operation in detail with a sample Servlet program. (13)	BTL3	Applying
11.	What is a session? Explain how client state is maintained using session and also explain about session tracking and session management using an example. (13)	BTL1	Remembering
12.	Explain the servlet life cycle with an example. (13)	BTL2	Understanding
13.	Write a Java code for getting the details of the items to be purchased from a client and to update the inventory of the shop after selling. Also bill should be prepared for the client. Maintain the transaction table also just by inserting these purchase item details at the shop use JDBC for transactions. (13)	BTL4	Analyzing
14.	(i) Write a code for creating cookies with name of person and secret code at the server, after getting these details from client using HTML form. How these details at the server side using HTTP servlet are displayed? (7) (ii) Write a code to display the current and yesterday's gold rate using session object. (6)	BTL4	Analyzing

PART - C			
1.	Describe the process of generating dynamic content using servlets. Briefly explain the importance of Document Object Model. (15)	BTL5	Evaluating
2.	With a simple example illustrate how the elements of the HTML document tree structure can be accessed using JavaScript. (15)	BTL6	Creating
3.	Discuss the ways of storing and accessing information using cookies and handling associated issues. (15)	BTL5	Evaluating
4.	Write a Java Servlet to display net salary of employee, use JDBC connectivity to get employee details from database. (15)	BTL6	Creating

UNIT IV - JSP AND XML			
Separating Programming and Presentation: JSP Technology Introduction-JSP and Servlets-Running JSP Applications Basic JSP-JavaBeans Classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm- Databases and JSP. Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration-Namespaces- DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data: XPATH-Template based Transformations: XSLT-Displaying XML Documents in Browsers.			
PART - A			
Q.No	Questions	BT Level	Competence
1.	Give the advantages of using JSP for server side programming.	BTL2	Understanding
2.	Write two basic differences between JSP and servlet.	BTL4	Analyzing
3.	List the types of directives in JSP.	BTL1	Remembering
4.	Explain in brief about Java Scriptlet.	BTL2	Understanding
5.	Display current date using Java Scriptlet.	BTL6	Creating
6.	What is MVC paradigm?	BTL1	Remembering
7.	Write short notes on some implicit objects in JSP.	BTL3	Applying
8.	Identify the steps involved in JSP.	BTL3	Applying
9.	Assess the JSP elements?	BTL5	Evaluating
10.	Explain JSTL?	BTL5	Evaluating
11.	What is the purpose of namespace?	BTL1	Remembering
12.	What is meant by XML namespace?	BTL1	Remembering
13.	Define DTD.	BTL2	Understanding
14.	What is an XPATH?	BTL1	Remembering

15.	List the advantages of XPATH.	BTL3	Applying
16.	How is XML parsing done with SAX?	BTL4	Analyzing
17.	Compare DOM and SAX in XML processing.	BTL4	Analyzing
18.	What does XSLT mean?	BTL1	Remembering
19.	What is the purpose of XSLT?	BTL2	Understanding
20.	Discuss CDATA and PCDATA.	BTL6	Creating
PART – B			
1.	State and explain the information in a JSP document in detail. (13)	BTL1	Remembering
2.	(i) Write a client server JSP program to find simple interest and display the result in the client. (7) (ii) Write about the JSP tag libraries. (6)	BTL6	Creating
3.	Identify the objects associated with JSP and highlight the features of each object. Explain the various JSP elements. (13)	BTL3	Applying
4.	Explain in detail the creation, instantiation and usage of java beans objects. (13)	BTL2	Understanding
5.	What is a JavaBeans component? How will you use the JSP language elements for accessing Beans in your JSP pages? (13)	BTL1	Remembering
6.	Discover a JSP code to access a table and records from a student database to obtain the result of a student. (13)	BTL4	Analyzing
7.	Classify the implicit objects involved in JavaScript Expression Language. (13)	BTL4	Analyzing
8.	(i) Explain the role of XML name spaces with examples. (7) (ii) Explain the features of XML path language. (6)	BTL2	Understanding
9.	Discover a XML document to store voter ID, voter name, address and date of birth details and validate the document with the help of DTD. (13)	BTL4	Analyzing
10.	Write XSLT code to display employee details in a Table form which is stored in XML. (13)	BTL3	Applying
11.	(i) Explain XPATH nodes in detail. (7) (ii) Explain about the object that helps AJAX reload parts of a web page without reloading the whole page. (6)	BTL5	Evaluating
12.	(i) List and explain the XML syntax rules in detail. (7) (ii) Explain how a XML document can be displayed on a browser. (6)	BTL1	Remembering
13.	Explain in detail the XML schema, built in and user defined data type detail. (13)	BTL1	Remembering
14.	(i) Explain in detail about XSL. (7) (ii) Explain about DOM based XML processing. (6)	BTL2	Understanding

PART – C			
1	(i) What is the significance of JavaBeans classes in the context of JSP? Discuss. (8) (ii) Explain about MVC architecture in detail. (7)	BTL5	Evaluating
2	Write a Servlet program to display the waiting list status, given the PNR number of a train. Create a JSP to display the information at the client end. (15)	BTL6	Creating
3	Get the students' details like name, register number and mark using form. Generate DTD for this XML document. Name Regno Mark XYZ 1000 90 ABC 1001 80 RST 1002 89 PQR 1003 87 Generate the collected information in the descending order of marks using XSLT. Results should be displayed in the above format. Write a source code and explain the same. (15)	BTL6	Creating
4	(i) Explain how XSLT transforms the document from one (Word) type to other type (HTML). (8) (ii) Describe the basic java bean classes and JSP tag libraries. (7)	BTL5	Evaluating

UNIT V - AJAX AND WEB SERVICES

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods. Web Services: JAX-RPC- Concepts-Writing a Java Web Service-Writing a Java Web Service Client-Describing Web Services: WSDL- Representing Data Types: XML Schema-Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files.

PART - A

Q. No	Questions	BT Level	Competence
1.	Explain AJAX.	BTL5	Evaluating
2.	Identify the advantages of AJAX.	BTL3	Applying
3.	Analyze the disadvantages of AJAX.	BTL4	Analyzing
4.	Identify the technologies used by AJAX.	BTL3	Applying
5.	List all the features of AJAX.	BTL4	Analyzing
6.	Compare AJAX and JavaScript?	BTL5	Evaluating
7.	Analyze where AJAX cannot be used?	BTL4	Analyzing
8.	Create an AJAX object.	BTL6	Creating
9.	What is web service?	BTL1	Remembering
10.	Why do you want to describe a Web Service?	BTL1	Remembering
11.	Mention some of the disadvantages of Web Service.	BTL2	Understanding
12.	List some examples of web services.	BTL1	Remembering
13.	Define serialization.	BTL2	Understanding
14.	List the basic concepts behind JAX-RPC technology.	BTL1	Remembering
15.	What is UDDI?	BTL1	Remembering

16.	Explain the term XML Schema.	BTL2	Understanding
17.	What is the purpose of XML schema?	BTL1	Remembering
18.	Define the need for SOAP.	BTL2	Understanding
19.	State the significance of a WSDL document. Give some uses of WSDL.	BTL3	Applying
20.	Give an example of a web service registry and its function.	BTL6	Creating
PART-B			
1.	(i) Discuss the various aspects of JAX-RPC. (7) (ii) Develop a Java Web Service that would do arithmetic operations. (6)	BTL4	Analyzing
2.	(i) What do you mean by AJAX? Write the advantages of AJAX. (7) (ii) Write short notes on Event-oriented Parsing. (6)	BTL1	Remembering
3.	(i) Discuss AJAX architecture and compare it with DOM and SAX. (7) (ii) What languages are used to represent data in web? Explain any two of them. (6)	BTL1	Remembering
4.	Discover about the development of a web application to illustrate the basics of AJAX. (13)	BTL4	Analyzing
5.	Explain about the XMLHttpRequest Object in detail. (13)	BTL2	Understanding
6.	Brief the Return Document Forms in AJAX. (13)	BTL1	Remembering
7.	Explain why the callback function is written as an anonymous function in the request phase function. (13)	BTL4	Analyzing
8.	(i) Explain in detail the steps involved in writing a web service.(7) (ii) Explain the basic concepts of RPC. (6)	BTL2	Understanding
9.	Describe the significance and working of WSDL with an example. (13)	BTL3	Applying
10.	Describe the major elements of SOAP. (13)	BTL1	Remembering
11.	Explain the role of XML schema in building web services in detail. (13)	BTL2	Understanding
12.	Design a railway reservation system using UDDI and WSDL for the following case study. Railway could register their services into an UDDI directory for checking the train rate and reservation. Travel agencies could then search the UDDI directory to find the railway reservation interface for ticket booking. (13)	BTL6	Creating
13.	Model a web service for calculator application. (13)	BTL3	Applying
14.	(i) Explain the JDBC database access in detail. (7) (ii) Explain the SOAP elements in detail. (6)	BTL5	Evaluating
PART-C			
1.	Explain JAX-RPC concept with suitable example. (15)	BTL5	Evaluating
2.	Discuss the creation of a Java Web Service in detail with examples. (15)	BTL6	Creating

3.	(i) Explain the elements of a SOAP message. (8) (ii) How do you store Java objects? Describe. (7)	BTL5	Evaluating
4.	Formulate the principles of WSDL, XML and SOAP and their interaction between them in web service applications. (15)	BTL6	Creating

