J.B. Institute of Engineering & Technology Department of IT

COURSE FILE



JAVA & WEB TECHNOLOGIES

Faculty

B.Ravindra Kumar

J.B. Institute of Engineering & Technology Department of IT SYLLABUS

Subject Name: Java & Web Technologies

Subject Code: JWT

Class :M.Tech. I Semester SE

Faculty Name: B.Ravindra Kumar

SI.No	Unit #	Details of the unit
		HTML Common tags, Access Control, Class Scope,
		List, Tables, Images, Forms, Frames
1	HTML JAVASCRIPT	C Introduction to Java Scripts
		Objects in Java Script,
		Dynamic HTML with Java Script
		Methods in JavaScript
		Functions in JavaScript
		Events cascading Style sheets
		Document type definition
		XML Schemas, Document
		Document Object model
	XML Introduction to Swing	Presenting XML
3		Using XML Processors: DOM and SAX
		DO Review of Applets,
		Class, Event Handling, AWT Programming.
		Introduction to Swing: JApplet, Handling
		Swing Controls like Icons – Labels – Buttons – Text Boxes – Combo – Boxes – Tabbed Pains – Scroll Pains – Trees – Tables
		Differences between AWT Controls & Swing Controls Developing a Home page using Applet & Swing.

SI.No	Unit #	Details of the unit
		Introduction to Java Beans
		Advantages of Java Beans,
		BDK Introspection, Using Bound properties,
4	JAVA BEANS INTRODUCTION TO SERVLET	Bean Info Interface, Constrained properties,
		Persistence,Customizes
		Java Beans API, Introduction to EJB's Tomcat web server, Introduction to Servelets
		Introduction to Servelets: Lifecycle of a Servelet,
		JSDK, The Servelet API
		The javax.servelet Package
		Reading Servelet parameters
		Initialization parameters
		The javax.servelet HTTP package
		Handling Http Request & Responses
5	MORE ON SERVLETS	Using Cookies-Session Tracking Security Issues
	JSP	The Problem with ServeletDevelopment Kit
		JSP Processing. JSP
		Application Design with MVC Setting Up
		JSP Environment: Installing the Java Software

Sl.No	Unit #	Details of the unit
	JSP Application Development	: Generating Dynamic Content, Using Scripting ElementsImplicit JSP Objects,
		Conditional Processing – Displaying Values Using an Expression to Set an Attribute,
8		Declaring Variables and Methods Error Handling and Debugging Sharing
	DATABASE CONNECTION	Data Between JSP pages, Requests, and Users Passing Control and Date between Pages – Sharing Session and Application Data – Memory Usage Considerations
		Database Access Database Programming using JDBC Studying Javax.sql.* package
		Accessing a Database from a JSP Page Application – Specific Database Actions Deploying JAVA Beans in a JSP Page from a JSP Page Application – Specific Database
		Actions, Deploying JAVA Beans in a JSP Page

TEXT BOOKS:

1. Web Programming, building internet applications, Chris Bates 2nd edition,

WILEY Dreamtech (UNIT 1,2)

- The complete Reference Java 2 Fifth Edition ,Patrick Naughton and Herbert Schildt., TMH (Chapters: 25) (UNIT 2,3)
- 3. Java Server Pages Hans Bergsten, SPD O'Reilly (UNITs 3,4,5)

J.B. Institute of Engineering & Technology Department of IT SUBJECT PLAN

Subject Name: Java & Web Technologies

Subject Code: JWT

Class :M.Tech. I Semester IT

Faculty Name: B.Ravindra Kumar

Unit #	Topics	Total No of Lessons
1	HTML	11
	JAVASCRIPT	
2		13
	XML	
	INTRODUCTION TO SWING	
3	JAVA BEANS	14
	SERVELET	
4	SERVELET	08
	INTRODUCTION TO JSP	
5		13
	APPLICATIONS OF JSP	
	DATABASE CONNECTION	
Total		59

• Each Period is of 45 Minutes. 4 periods each Week.

J.B. Institute of Engineering & Technology Department of IT LESSON PLAN

Subject Name: Java & Web Technologies

Subject Code:JWT

Class : M.Tech. I Semester IT

Faculty Name: B.Ravindra Kumar

S.No	Topic as per JNTU syllabus	*Lesson s#	Suggested	Question Bank			Hand outs
			Books **	OQ	DQ	AQ	
			(Refer the list)				
	Unit 1	1	1				
1	HTML Common tags,	1	TB-1 2.1	1-1		A1	H1
2	List	1	TB-1 2.6	1-3			
3	Tables	1	TB-1 2.7	1-2			
4	Images	1	TB-1 2.8				
5	Forms,	1	TB-1 3.3	1			
6	Frames	1	TB-1 3.2	1		A1	
7	Cascading Style sheets	1	TB-1 4.1				
8	Introduction to Java Scripts	1	TB –1 5.2	1		A1	
9	Objects in Java Script,	2	TB-1 6.1	1			
10	Dynamic HTML with Java Script	2	TB-1 7.2	1			
11	Methods in JavaScript	1	TB-1 5.6	1			
	Functions in JavaScript						
	Unit 2			•	•		•
12	Document type definition	2	TB-1 14.2	1		A2	H2
13	XML Schemas, Document	1	TB-1 14.3	1		A2	
14	Document Object model	1	TB-1 14.4	1		A2	
15	Presenting XML	1	TB-1 14.5	1		A2	
16	Using XMLProcessors: DOM and SAX	1	TB-1 17.7			A2	
17	Review of Applets, Class, Event	1	TB-2			A2	H3

	Handling, AWT Programming				
18	Introduction to Swing: JApplet	1	ТВ-2		
19	Handling Swing Controls like		ТВ-2		
	Icons – Labels – Buttons				
20	Text Boxes – Combo – Boxes		ТВ-2		
21	Tabbed Pains – Scroll Pains –		TB-2		
	Tress -Tables				
22	Differences between AWT		ТВ-2		
	Controls & Swing Controls				
23	Developing a Home page using		TB-2		
	Applet & Swing.				
	Unit 3		-1		
24	Introduction to Java Beans	1	TB-2		H4
25	Advantages of Java Reans	1			
25	Advantages of Java Bears,	1			
20	BDK Introspection		10-2		
27	Using Bound properties,	1	TB-2		
28	Bean Info Interface	1	TB-25		
29	Constrained properties	1	TB-2.6		
30	Persistence, Customizes		TB-2		
31	Java Beans API		TB-2		
32	Introduction to EJB's	1	ТВ-2		
33	Tomcat web server, Introduction	1	TB-2		H5
	to Servelets				
34	Introduction to Servelets:		TB-2		
	Lifecycle of a Serverlet,				
35	JSDK, The Servelet API		ТВ-2		
36	The javax.servelet Package		TB-2		
37	Reading Servelet parameters		TB-2		
38	Initialization parameters		TB-2		

S.No	Topic as per JNTU syllabus	*Lesson s#	Suggested	Question Bank		Hand outs	
			Books **	00		10	
	Linit 4		(Refer the list)	UQ	DQ T		
39	Initialization parameters	1	TB-2				
		1	10 2				
40	The javax.servelet HTTP package	1	ТВ-2				
41	Handling Http Request &	1	TB-2				
	Responses						
42	Using Cookies- Session Tracking	1	ТВ-2				
43	Security Issues	1	ТВ-2				
44	The Problem with Servelet	1	TB-2				
	Development Kit						
45	JSP Processing. JSP	1	TB-3				Н6
46	Application Design with MVC	1	TB-3				
	Setting Up						
							Н7
	onit -5						117
47	JSP Application Development,	1	TB-3				
	Generating Dynamic content						
48	Using Scripting Elements, JSP	1	TB-3				
	implicit objects						
49	Conditional Processing,	1	TB-3				
	displaying values using an						
	Expression						
50	Declaring variables methods and	1	TB-3				
50	Frror handling and Detection	L	10-5				
51	Sharing data between jsps-	1	TB-3				
	sharing session and application						
	data						
52	Sharing data from a java bean to	1	TB-3			_	
	isp pages	-					
53	Introduction to Struts Framework	1	TB-3				

54	JSP Application Development, Generating Dynamic content	1	TB-3		
55	Database Access : Database Programming using JDBC	1	TB-3		H9
56	Database Programming using ODBC,	1	TB-3		
57	Database Programming using ODBC, Database from a JSP Page	1	TB-3		
58	Studying Javax.sql.*	1	TB-2		
59	package,Accessing a Database from a JSP Page	1	TB-2		
	Total Lessons	59			

Abbreviations and Notes

- OQ: Objective Questions DQ: Descriptive Questions AQ : Assignment Questions
- TB : Text Book SB :Suggested reference books (SB)

References:

Туре	Detail
Text 1 (T1)	Web Programming, building internet applications, Chris Bates 2 nd edition,WILEY Dreamtech (UNIT 1,2)
Text2 (T2)	The complete Reference Java 2 Fifth Edition ,Patrick Naughton and Herbert Schildt., TMH (Chapters: 25) (UNIT 2,3)
Text3 (T3)	Java Server Pages –Hans Bergsten, SPD O'Reilly (UNITs 3,4,5)

Objec	tive:
1.	Give the distinguishing characteristic of scripting languages
2.	Discuss the reasons for and effects of nonstandard client-side scripting language characteristics, such as limited data types, dynamic variable types and properties, and extensive use of automatic type conversion
3.	Write a client-side function that uses a regular expression to validate form entry and, if an entry is invalid, displays an error message rather than submitting the form
4.	Develop event-driven programs that use HTML intrinsic event attributes, DOM event listeners, and DOM- generated events
Descri	ptive Questions Marks
1.	(a) Explain how images can be inserted in to a HTML document.
	(b) Explain how forms are created.(c) What is the difference between group of checkbox buttons and group of radio buttons?
2.	Explain the following terms related to HTML table: (a) Cell padding and spacing.
	(b) Borders
	(c) Formatting content in Table cells
3.	Create a HTML document that has he a form with the following controls:
	(a) A text box to collect the customer's name.
	(b) Four checkboxes, one each for the following items:
	ii Fight XML textbooks for Rs 2000
	iii. Four JavaBeans books for Rs.2500.
	iv. Eight UML textbooks for Rs.1500.
	(c) A collection of three radio buttons that are labeled as follows:
	i.Cash
	ii.Cheque/DD
	iii. Credit card.
4.	(a) Explain what do you mean by unordered lists with a relevant example.
	(b) Show how group and alignment of tables' rows and columns is achieved using

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HTML.

(c) How do you add a border to a create table?

5. a) Write a JavaScript to display the denomination of the amount deposited in the bank in terms of 100's, 50's, 20's, 10's, 5's, 2's & 1's. (Eg: If deposited amount

is Rs.163, the output should be 1-100's, 1-50's, 1- 10's, 1-2's & 1-1's) (b) What is function? Explain how parameters are passed to functions in JavaScript.

- 6. S(a) Write a script that inputs a line of text, tokenizes it with String method split and displays the tokens in reverse order.(b) Explain the Math object used in JavaScript with examples.
- 7. (a) Create a JavaScript which has event handlers for the buttons "red", "blue", "green", "yellow" and "orange" which must produce messages stating the chosen favorite color. The event handler must be implemented as a function, whose name must be assigned to the Onclick attribute of the radio button elements. The chosen color must be sent to the event handler as a parameter. (b) Insert an image into a web page. Write a script which displays a message when the mouse is over the image. The co-ordinates of the mouse should be displayed if click is attempted on the image.
- 8. (a) How does JavaScript fare as an object-oriented language? Would it be correct to say that JavaScript is object-based rather than object-oriented?

(b) Explain how events are handled in JavaScript.

(c) Write a script that reads an integer and displays whether it is a prime number or not.

Assignment Questions:

- 1. Write a JavaScript which accepts a text, then prints the count of number of characters, words and lines in the text.
- 2. Explain the advantages of DHTML with JavaScript with suitable examples

Write short notes on the following:

a) HTML Frames b) HTML vs. DHTML.

- Write HTML code that displays a tic-tac-toe table with player X winning. Use <h3> to mark up both Xs and Os. Center the letter in each cell horizontally. Title the game using an <h2> tag. The title should span all three columns. Set the table border to 1.
- 2) Define Cascading Style Sheet (CSS). Write a CSS rule that gives all h1 and h2 elements a padding of 0.5 ems, a grooved border style and a margin of 0.5ems
- 3) a) Describe Dynamic HTML?
 - b) Explain about various objects in JAVA script?
 - c) Describe any two HTML tags?

Objective:

- 1. Use the DOM to modify a document's attributes and style properties as well as to modify its parse-tree representation
- 2. Use de facto standard browser host objects for tasks including I/O, opening new windows, sleeping, and navigation
- **3.** Demonstrate the use of both a debugger and a DOM inspector in order to understand the execution of a client-side program.
- 4. Demonstrate the use of JavaBean

Descriptive Questions:

- 1. Design an XML schema for hospital information management. Include every feature available with schema.
- 2. (a) Explain the following terms related to XML:
 - i. XML parsing
 - ii. XML browsers
 - iii. XML editors
 - iv. XML validators.

(b) Show how SAX is an alternative method for parsing XML documents. Also give the advantages of SAX.

- 3. Design an XML schema for hospital information management. Include every feature available with schema.
- 4. Take the Tick Tock Bean available in BDK; build an application which controls the Colors Bean. Develop the necessary code to exhibit the bound properties of java beans with the above mentioned beans.
- 5. What is a Java Bean API? List out the set of classes and interfaces in java beans package. Explain briefly each of the above.
- 6. Write about the following:

(a)Bean methods

(b)Bean properties

Assignment Questions:

- 1. Describe in detail about the Document Object Model.
- 2. Compare and contrast DOM and SAX
- **3**. Describe XML documents and schemas
- 4. With a suitable example explain the significance of Java Beans.
- 5. Explain the Enterprise Java Beans technology and its importance on developing the server-side architecture
- 6. Write short notes on the following:
 - a) Advantages of Java beans b) Tomcat server features
- 7. a) What are JAVA Beans and what are it's advantages?b) What are the constrained properties of Java Beans and explain about interface of Beans

Unit No. 03

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Java & Web Technologies

Objectives

- 1. Describe how a given web server responds to an HTTP request for a dynamic resource
- 2. Discuss the strengths and weaknesses of the program-centric and markup-centric approaches to server-side development Explain parameter passing from client to server, including the generation of query strings from forms and server-side processing
- 3. Describe sessions conceptually and explain how the concept can be implemented using cookies and URL rewriting
- 4. Discuss the concept and implementation of cookies as well as related privacy concerns

Descriptive

Marks

- 1. Explain the functionality of javax.servlet package for web servers. Discuss about various classes and interfaces of the package.
- 2. (a) Write about doGet and doPost methods.(b) Why doPut method is seldom used? What are the problems associated with doPut method.
- 3. (a) Make a comparison of servlet and applets.
 - (b) "Servlets offer several advantages over Common Gateway Interfaces". Justify
- 4. (a) List and explain the steps followed to test the servlet program.(b) Describe in detail ServletResponse interface of javax.servlet package
- 5. (a) Write a JSP that greets the user by name.
 - (b) Discuss about javax.servlet.jsp package.
- 6. (a) Give a note on fixed- template data.
 - (b) Describe Model-View-Controller setup.
 - (c) Write about javax.servlet.jsp.tagext package.
- 7. (a) Differentiate between servlets and JSPs.
 - (b) Write a JSP expression to insert current date and time in to a web page.
- 8. (a) Differentiate between servlets and JSPs.
 - (b) Write a JSP expression to insert current date and time in to a web page

Assignment Questions:

- 1. Explain how JSP processing is handled. Also show how JSP are better than servlet.
- 2. Compare and contrast cookies and sessions with suitable examples
- 3. Describe the problems associated with servelets? And how to overcome?
- 4. Describe about the steps needed in JSP application design?
- 5. What is a java servlet? Explain with a neat illustration the lift cycle of a servlet. Also clearly give the characteristics of a servlet.

6. Explain how security issues are handled for the web servers with examples. 7. What is HTTP package and explain how to handle the requests and responses of Http? b) Describe various security issues of Web servers? Unit No: 4 M.Tech. I Semester IT Java & Web Technologies Objectives 1. Identify and correct problems related to concurrency in server-side programs 2. Explain common security threats such as cross-site scripting and misformed HTTP requests and demonstrate avoidance techniques for each 3. Discuss the concept and implementation of cookies as well as related privacy concerns 4. Develop a reasonably sophisticated web application that appropriately employs the MVC architecture **Descriptive Questions:** 1. (a) Differentiate between servlets and JSPs. (b) Write a JSP expression to insert current date and time in to a web page. 2. (a) Differentiate between servlets and JSPs. (b) Write a JSP expression to insert current date and time in to a web page. 3. (a) Write a JSP that greets the user by name. (b) Discuss about javax.servlet.jsp package. 4 (a) Give a note on fixed- template data. (b) Describe Model-View-Controller setup. (c) Write about javax.servlet.jsp.tagext package. **Assignment Questions:** 1. Explain how JSP processing is handled. Also show how JSP are better than servlet. 2. Compare and contrast cookies and sessions with suitable examples 3. Describe the problems associated with servelets? And how to overcome? 4. Describe about the steps needed in JSP application design?

Unit No. 05 M.Tech. I Semester IT

Java & Web Technologies

Objective:

- 1. Identify and correct problems related to concurrency in server-side programs
- 2. Explain common security threats such as cross-site scripting and misformed HTTP requests and demonstrate avoidance techniques for each
- 3. Discuss the concept and implementation of cookies as well as related privacy concerns
- 4. Develop a reasonably sophisticated web application that appropriately employs the MVC architecture
- 5. Describe about the Types of Database Drivers (JDBC & ODBC)

Descriptive Questions Marks 1. (a)Discuss about dynamic content. (b) List the methods in request object 2. Create a login form for a mail server and JSP to validate and to perform appropriate actions. 3. (a) Discuss about dynamic content. (b)List the methods in request object. 4. Explain JSP scripting components with examples. 5. List and explain the steps involved in a basic JDBC program. 6. Define a complete data manipulation application for the book database. The user should be able to edit existing data, add new data to the database and delete any obsolete data. 7. Write a JDBC program to update the bonus attribute of employee table, if an employee is in top 10 in sales. 8. Develop a JSP to act as a simple search engine with the support of necessary database. Web page will accept the topic name and JSP will be activated by a "submit" button click. JSP will open relevant page with a set of relevant URLs for that topic.

Assignment Questions:

- 1. Describe various steps that are needed for accessing a database from a JSP page?
- 2. Explain various steps involved in deploying Java Beans in a JSP page?
- 3. Write a servlet program to retrieve data from the database (Use your own data base)
- 4. Show how a database is accessible from a JSP page that is created.
- 5. Explain clearly how a Java bean is deployed in a JSP page with an example
- 6. Explain the methods of Error handling and debugging routines of JSP Application development environment?
- 7. What are the various memory usage considerations in JSP application development?

Web Technologies :QUESTION BANK 1 (Descriptive)-DQ1

- 1. Explain how would you create an Ordered list.
- 2. Create a HTML table with columns for a country-name, national sport, national flower, national Animal and national tree. There must be at least five states as rows in the table
- 3. Create a JavaScript which has event handlers for the buttons "red", "blue", "green", "yellow" and "orange" which must produce messages stating the chosen favorite color. The event handler must be implemented as a function, whose name must be assigned to the onclick attribute of the radio button elements. The chosen color must be sent to the event handler as a parameter.
- 4. Insert an image into a web page. Write a script which displays a message when the mouse is over the image. The co-ordinates of the mouse should be displayed if click is attempted on the image.
- 5. Explain the use of XML schema in the web designing application.
- 6. Write about the importance of namespaces in XML.
- 7. Take the TickTock Bean available in BDK, build an application which controls the Colors Bean. Develop the necessary code to exhibit the bound properties of java beans with the above mentioned beans.
- 8. What is a servlet? Explain lifecycle of a servlet. Illustrate with an example program.
- 9. Write about the JSP processing.
- 10. Explain the components of JSP.
- 11. Which is the biggest scope provided by JSP? Explain it.
- 12. Develop a JSP which uses two Beans in different scopes.
- 13. Discuss about prepared statements.
- 14. Write a note on java.sql.Driver class.
- 15. Explain the following terms related to HTML table:
 - (a) Cell padding and spacing

- (b) Borders
- (c) Formatting content in Table cells
- (d) Nested tables.
- 16. Compare and contrast HTML and DHTML.
- 17. Write a javascript to validate a form consisting of a username. Also navigate to another web page after validation.
- 18. With a suitable example explain the creation of namespaces in XML.
- 19. Explain the various types of XML schema data types used.
- 20. Explain the following given interfaces and their usage:
 - i. AppletInitializer
 - ii. BeanInfo
 - iii. Customizer
 - iv. DesignMode.
- 21. Explain the significance of Enterprise Java Beans in the present day 'backend business code'.
- 22. Create a HTML form with three input fields first name, last name and e-mail.Pass these values to a servlet. In the servlet, verify all input fields are not null and display them back to client.
- 23. Give the signature of a method which in used to read bytes from the stream for a servlet. Explain its usage.
- 24. Explain JSP application design with suitable example?
- 25. Develop a JSP to keep track number of users and display a message "You are nth visitor" where n is number of user.
- 26. Write a detail note on JSP escape sequences
- 27. Explain the process of getting/accessing metadata for a resultset.
- 28. Create a simple HTML page which demonstrates the use of the various types of lists. Try adding a definition list which uses an unordered list to define terms.
- 29. Write a program to construct a binary tree and to traverse the same in post order.
- 30. Insert an image into a web page. Write a script which displays a message when the mouse is over theimage. The co-ordinates of the mouse should be displayed if click is attempted on the image.
- 31. Give the syntax of an XML document and explain how a basic XML document is created with an example.
- 32. Explain the following terms related to Document Type Definition:

- i. elements
- ii. attributes & entities
- iii. internal & external entities.
- 33. Write about the following:
 - (a) Bean methods
 - (b) Bean properties
 - (c) Bean events

34. Create a Servlet that displays the current date and time.

- 35. Make a Comparison of JSDK and Apache Tomcat.
- 36. Develop a JSP to accept users first name and then welcome the user by name.
- 37. Discuss about javax.servlet.jsp.tagext package.
- 38. Develop a JSP with a Bean in the application scope.
- 39. What is a scriplet? Write about scriplet elements.
- 40. Write short notes on:
 - (a) Connection Interface
 - (b) Statement Object
 - (c) Inner join
 - (d) Execute Query Method.

41. What are the different types of lists in HTML? Explain how these lists are created in HTML with

- 42. suitable examples.
- 43. Explain how a basic table is created using HTML.
- 44. Describe the primitive data types that Javascript uses.
- 45. Write a script that reads an integer and determines and displays whether it is an odd or even number.
- 46. Create a DTD for a catalog of four-stroke motorbikes, where each motorbike has the following child
- 47. elements-make, model, year, color, engine, chasis number and accessories. The engine element has the
- 48. child elements engine number, number of cylinders, type of fuel. The accessories element has the
- 49. attributes like disc brake, auto start & radio, each of which is required and has the possible values
- 50. yes and no. Entities must be declared for the names of the popular motorbike makes.

- 51. Give the advantages and disadvantages of XML schemas.
- 52. Take the TickTock Bean available in BDK, build an application which controls the Colors Bean. Develop
- 53. the necessary code to exhibit the bound properties of java beans with the above mentioned beans.
- 54. What is a Cookie? Give the information that is saved for each cookie on the user's machine.
- 55. Explain HttpSession Interface.
- 56. What are the limitations of Servlets? How JSP over comes these Problems.
- 57. Discuss about Tomcat Server.
- 58. Discuss about of session scope- manually and automatically with suitable examples.
- 59. Write short notes on following:
 - (a) Pure Java driver
 - (b) Driver Manager
 - (c) SQL query
 - (d) Order by clause. [4×4]

Web Technologies : QUESTION BANK 3 (Descriptive)-DQ2

- 1. (a) Create a registration form for creating a new savings account in a bank. Include the features like checkboxes, radio buttons and other control widgets.
 - (b) What is a frame? What is the advantage of using a frame? Clearly explain the creation of frames with an example
- 2. BeanInfo Interface is used by the developer"- show how this statement is justice and explain with an example how Bean Info serves the purpose.
- 3. (a) Explain the vari ous control statements available with JavaScript.(b) JavaScript is event driven". What is meant by an event? Show how JavaScript can handle the events.
- 4. Write a servlet that greets the user by name. Accept the username through a HTML page. Trace the program execution.
- 5. Write short notes on following:
 - (a) Pure Java driver
 - (b) Driver Manager
 - (c) SQL query
 - (d) Order by clause.
- 6. (a) Explain how a server generates dynamic content.(b) Give a note on request time errors
- 7.
- (a) Explain and show how XML is useful in defining data for web applications.
- (b) Explain the various terms related to Document Type Definition
- 8. Java server pages simplify the delivery of dynamic web content. Justify this statement with a help of example program.
- 9. Java server pages simplify the delivery of dynamic web content. Justify this statement with a help of example program.

10.

- (a) Create a registration form for creating a new savings account in a bank. Include the features like checkboxes, radio buttons and other control widgets.
- (b) What is a frame? What is the advantage of using a frame? Clearly explain the creation of frames with an example

11.

- (a) Explain how a server generates dynamic content.
- (b) Give a note on request time errors.
- 12. Bean Info Interface is used by the developer"- show how this statement is justified and explain with an example how Bean Info serves the purpose
- 13. Write short notes on following:
 - (a) Pure Java driver
 - (b) Driver Manager
 - (c) SQL query
 - (d) Order by clause

14.

- (a) Explain the various control statements available with JavaScript.
- (b) JavaScript is event driven". What is meant by an event? Show how JavaScript can handle the events.
- 15. Write a servlet that greets the user by name. Accept the username through a HTML page. Trace the program execution.

16.

- (a) Explain and show how XML is useful in defining data for web applications.
- (b) Explain the various terms related to Document Type Definition.
- 17. BeanInfo Interface is used by the developer"- show how this statement is justified and explain with an example how BeanInfo serves the purpose.
- 18. Write short notes on following:
 - (a) Pure Java driver
 - (b) Driver Manager
 - (c) SQL query
 - (d) Order by clause.
- 19. Write a servlet that greets the user by name. Accept the username through a HTML page. Trace the program execution.

20.

- (a) Create a registration form for creating a new savings account in a bank. Include the features like checkboxes, radio buttons and other control widgets.
- (b) What is a frame? What is the advantage of using a frame? Clearly explain the creation of frames with an example

21.

- (a) Explain how a server generates dynamic content.
- (b) Give a note on request time errors
- 22. Java server pages simplify the delivery of dynamic web content. Justify this statement with a help of example program.

23.

- (a) Explain and show how XML is useful in defining data for web applications.
- (b) Explain the vari ous terms related to Document Type Definition

24.

- (a) Explain and show how XML is useful in defining data for web applications.
- (b) Explain the various terms related to Document Type Definition.

25.

- (a) Explain the various control statements available with JavaScript.
- (b) JavaScript is event driven". What is meant by an event? Show how JavaScript can handle the events.
- 25. Java server pages simplify the delivery of dynamic web content. Justify this statement with a help of example program.
- 26. Write a servlet that greets the user by name. Accept the username through a HTML page. Trace the program execution.

27.

- (a) Explain how a server generates dynamic content.
- (b) Give a note on request time errors.

28.

- (a) Create a registration form for creating a new savings account in a bank. Include the features like checkboxes, radio buttons and other control widgets.
- (b) What is a frame? What is the advantage of using a frame? Clearly explain the creation of frames with an example.