

SRI VENKATESWARA UNIVERSITY
B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY
V SEMESTER

(Skill Enhancement Courses (SECs) for V Semester, from 2022-23 (Syllabus with Learning Outcomes, References, Co-curricular Activities)

Structure of SECs for Semester – V

(To choose one pair from the two alternate pairs of SECs)

Univ Code	Courses 6 & 7	Name of Course	Th Hrs/Wk	IE Marks	EE Marks	Credits	Prac Hrs/wk	Marks	Credits
	6A	Advanced Java Script: JQUERY ,AJAX , JSON	3	25	75	3	3	50	2
	7A	ReactJS	3	25	75	3	3	50	2
OR									
	6B	Java Servlets	3	25	75	3	3	50	2
	7B	Java Server Pages (JSP)	3	25	75	3	3	50	2

Note-1: For Semester–V, for the domain subject Computer Science any one of the two pairs of SECs shall be chosen as courses 6 and 7, i.e., 6A & 7A or 6B & 7B. The pair shall not be broken (ABCD allotment is random, not on any priority basis).

Note-2: One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate field related skills of the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations

SRI VENKATESWARA UNIVERSITY
B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY
V SEMESTER
W.E.F.2022-23
COURSE 6A: ADVANCED JAVA SCRIPT-JQUERY,AJAX , JSON
(Skill Enhancement Course (Elective), Credits: 05)
Max Marks: 100 + 50

I. Learning Outcomes: On completion of the course, students will be able to:

1. Create a dynamic website using advanced features of JavaScript and create a website with good and attractive design
2. Understand jQuery-Document Object Model traversing and content manipulation
3. Enhancing pages with jQuery animations
4. Construct interactive web pages using jQuery widgets and plugins
5. Integrate Asynchronous JavaScript and XML (AJAX), JSON techniques into applications

II. Syllabus: (Total Hours: 90 including Teaching, Lab, and Field training, Unit tests etc.)

UNIT I:

jQuery – Basics: String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuery – Selectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. jQuery – DOM Attributes: Get Attribute Value, Set Attribute Value.

UNIT-II:

jQuery – CSS Methods : Apply CSS Properties, Apply Multiple CSS Properties, Setting Element Width & Height, JQuery CSS Methods.

jQuery – DOM Traversing : Find Elements by index, Filtering out Elements, Locating Descendent Elements, JQuery DOM Traversing Methods. jQuery – DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods.

UNIT-III:

jQuery – Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes.

jQuery – Effects: JQuery Effect Methods, jQuery Hide and Show, jQuery Toggle, jQuery Slide – slideDown, slideUp, slideToggle, jQuery Fade – fadeIn, fadeOut, fadeTo, jQuery Custom Animations,

UNIT-IV:

Intro to jQuery UI, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, jQuery UI interactions- Draggable, Droppable, Resizable, Selectable, Sortable, jQuery UI widgets- Accordion, Auto Complete, ButtonSet, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, jQuery UI effects- Color Animation, Easing, Effect, addClass, removeClass

Unit-V:

Intro to AJAX, Need of AJAX in real web sites, Getting database data using jQuery-AJAX, Inserting, Updating, Deleting database data using jQuery-AJAX Grid Development using jQuery-AJAX.

Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

III. References:

1. jQuery UI 1.8: The User Interface Library for jQuery by Dan Wellman
2. jQuery Fundamentals by Rebecca Murphey
3. Ajax: The Complete Reference by Thomas A. Powell
4. Introduction to JavaScript Object Notation: A To-the-Point Guide to JSON 1st Edition by Lindsay Bassett

IV. Co-Curricular Activities

a) Mandatory: (Training of students by teacher in field related skills: (lab: 10 + field: 05) :

1. **For Teacher:** Field related training of students by the teacher in laboratory/field for not less than 15 hours on identifying On various controls, events, widgets, etc.
2. **For Student:** Students shall (individually) search online and analyze and generate report about different controls and events, widgets and plugins used in any of the ReactJS websites like Facebook, Instagram, Asana, Netflix, Codecademy, Yahoo mail, New York Times, Atlassian, DropBox, etc and submit a hand-written Fieldwork/Project work Report not exceeding 10 pages.
3. Max marks for Fieldwork / Project work / Report: 05.
4. Suggested Format for Field work/Project work: Title page, student details, index page, details of place visited, observations, findings, implementation and acknowledgements.
5. Unit tests (IE).

b) Suggested Co-Curricular Activities

1. Build a website with 10 pages for the case study identified.
2. Training of students by related industrial experts.
3. Assignments
4. Seminars, Group discussions, Quiz, Debates etc. (on related topics).
5. Presentation by students on best websites

SRI VENKATESWARA UNIVERSITY

B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY

V SEMESTER - W.E.F. 2022-23

COURSE 6A: ADVANCED JAVA SCRIPT-JQUERY,AJAX , JSON

MODEL QUESTION PAPER

Time: 3 hours

Marks: 75 marks

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer any five of the following questions in Part A. Part B consists of 5 Units. Answer one full question (A or B) from each unit (i.e., Q.No 9 from Unit – I, Q.No 10 from Unit – II, Q.No 11 from Unit – III, Q.No 12 from Unit – IV, Q.No 13 from Unit – V). Each question carries 10 marks.

PART – A

Answer any *Five* of the following question.

(5X5=25M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

(P.T.O)

PART – B

Answer All The Questions. Each question carries 10 marks (5X10= 50M)

9.	(A) OR (B)
10.	(A) OR (B)
11.	(A) OR (B)
12.	(A) OR (B)
13.	(A) OR (B)

COURSE 6A : ADVANCED JAVA SCRIPT: JQUERY,AJAX, JSON

PRACTICAL SYLLABUS:

V. Skill Outcomes: On successful completion of this practical course, the student shall be able to:

1. Create interactive dynamic web sites using jQuery,HTML, CSS
2. Create interface for dynamic websites
3. Manipulate content of the web pages dynamically
4. Implement web applications using AJAX and JSON

VI. Practical Syllabus: (30 Hrs)

1. Using jQuery find all text areas, and makes a border. Then adds all paragraphs to the jQuery object to set their borders red.
2. Using jQuery add the class "w3r_font_color" and w3r_background to the last paragraph element.
3. Using jQuery add a new class to an element that already has a class.
4. Using jQuery insert some HTML after all paragraphs.
5. Using jQuery insert a DOM element after all paragraphs.
6. Convert three headers and content panels into an accordion. Initialize the accordion and specify the animate option
7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.
8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.
9. Initialize the button and specify the disable option.
10. Initialize the button and specify an icon on the button.
11. Initialize the button and do not show the label.
12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.
13. Initialize the date picker and specify a text to display for the week of the year column Heading

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V SEMESTER
W.E.F.2022-23

COURSE 7A: REACTJS

(Skill Enhancement Course (Elective), Credits: 05)

Max Marks: 100 + 50

I.Learning Outcomes: On successful completion of the course, the learner will be able to

1. Develop a proper understanding of Web Development Architecture.
2. Create application using React components.
3. Perform Navigation using Routes.
4. Build Web Applications using React with Redux.
5. Perform ReactJS animations

II. Syllabus: *(Total Hours: 90 including Teaching, Lab, and Field training, Unit tests etc.)*

UNIT-I:

ReactJS introduction, Why to learn ReactJS, React Environment Setup- Pre-requisite for ReactJS, Ways to install ReactJS, ReactJS – Architecture, ReactJS - Creating a React Application, React create-react-app, Features of ReactJS, ReactJS vs Native React, ReactJS vs AngularJS

UNIT-II:

ReactJS – JSX, ReactJS – Components: Creating a React component, Creating a class component, Creating a function component, ReactJS – Styling, ReactJS - Properties (props), React Props Validation

UNIT-III:

ReactJS state management, ReactJS event Management, React Constructor, React Component API, React Component Life-Cycle, React Forms and user input, Controlled Component, Un-Controlled Component, Form link.

UNIT-IV:

ReactJS - Http Client Programming, React Lists, The map() function, React Keys, React Refs, React Fragments, React Router, ReactCSS, React Animation, React Date picker, DOM in React.

UNIT-V:

React AJAX call- HTTP GET request, HTTP GET Request and Looping through data, React Bootstrap, React Table, React Hooks, React building and deployment.

III. References:

1. Learning React: Functional Web Development with React and Redux 1st Edition by Alex Banks.
2. The Road to React: Your journey to master plain yet pragmatic React.js by Robin Wieruch
3. React.js Essentials: A fast-paced guide to designing and building scalable and maintainable web apps with React.js by Artemij Fedosejev
4. Full-Stack React Projects: Learn MERN stack development by building modern web apps using MongoDB, Express, React, and Node.js, 2nd Edition Paperback by Shama Hoque
5. React.js Book: Learning React JavaScript Library From Scratch by Greg Sidelnikov

IV. Co-Curricular Activities:

a) **Mandatory:** (*Training of students by teacher in field related skills: (lab: 10 + field: 05)*) :

1. **For Teacher:** Field related training of students by the teacher in laboratory/field for not less than 15 hours on demonstrating various **interactive and dynamic websites** available online, addressing the students on identifying the case study to build an interactive websites in ReactJS.
For Student: Students shall (individually) search online and visit any of the agencies like malls, hotels, super bazaars, etc. to identify and create a single page web application with at least one user interface and can also be mobile-friendly using ReactJS. They should submit a Fieldwork / Project work Report not exceeding 10 pages.
2. Max marks for Fieldwork/Project work Report: 05.
3. Suggested Format for Fieldwork/Project work: *Title page, student details, index page, details of place or websites visited, structure of the website, implementation details, acknowledgements, etc.*
4. Unit tests (IE).

b) **Suggested Co-Curricular Activities**

1. Arrange expert lectures by IT experts working professionally in the area of web content development
2. Assignments (in writing or implementing contents related to syllabus or outside the syllabus. Shall be individual and challenging)
3. Seminars, Group discussions, Quiz, Debates etc. (on related topics).
4. Presentation by students on best websites.
5. Arrange a webpage development competition among small groups of students.

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B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY

V SEMESTER - W.E.F. 2022-23

COURSE 7A: REACTJS

MODEL QUESTION PAPER

Time: 3 hours

Marks: 75 marks

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer any five of the following questions in Part A. Part B consists of 5 Units. Answer one full question (A or B) from each unit (i.e., Q.No 9 from Unit – I, Q.No 10 from Unit – II, Q.No 11 from Unit – III, Q.No 12 from Unit – IV, Q.No 13 from Unit – V). Each question carries 10 marks.

PART – A

Answer any *Five* of the following question.

(5X5=25M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

(P.T.O)

PART – B

Answer All The Questions. Each question carries 10 marks (5X10= 50M)

9.	(A) OR (B)
10.	(A) OR (B)
11.	(A) OR (B)
12.	(A) OR (B)
13.	(A) OR (B)

COURSE 7A: REACTJS - PRACTICAL SYLLABUS

V. Skill Outcomes: On successful completion of this practical course, the student shall be able to:

1. Create interactive dynamic web sites using ReactJS
2. Create interface for dynamic websites
3. Manipulate content of the web pages dynamically
4. Create login forms using ReactJS
5. Create websites with multi-page navigation using React Router

VI. Practical (Laboratory) Syllabus: (30 hrs.)

1. Design and Implement simple ReactJS program to display “Hello world!”
2. Design and Implement Search filter in ReactJS?
3. Design and Implement Simple counter using ReactJS?
4. Design and Implement a List in ReactJS and iterate over all the elements in the list using ReactJS?
5. Design and Implement Accordion in ReactJS?
6. Design and implement Datapicker in ReactJS?
7. Design and Implement Image Slider using ReactJS?
8. Create a check list in ReactJS and implement onchange() event handler?
9. Design and implement simple login form using ReactJS?
10. Design and implement ReactJS program to print data from REST API?
11. Design and implement Multi-Page navigation using React Router

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B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY
V SEMESTER
W.E.F.2022-23
COURSE 6B: JAVA SERVLETS

(Skill Enhancement Course (Elective), Credits: 05)
Max Marks: 100 + 50

I. Learning Outcomes: On successful completion of the course, the learner will be able to

1. Describe Servlet Life Cycle and Servlet Architecture
2. Understand ServletConfig, ServletContext, ServletResponse and Supplying initialization parameters to Servlets
3. Performing database operations in Servlets
4. Demonstrate Session tracking mechanism in Servlets
5. Create server side programs using Java Servlets

II. Syllabus: (Total Hours: 90 including Teaching, Lab, Field training, Unit tests etc.)

UNIT I :

Understanding the need for server side extension, Introducing Java Servlet, Advantages of a Servlet, exploring the Servlet Container: The Standalone Container, The In-Process Container, The Out-Process Containers, Servlet API : javax.servlet package, javax.servlet.http package; Implementing a Servlet Object: javax.servlet.Servlet Interface, the javax.servlet.ServletConfig Interface, Servlet Life Cycle: Stages of Servlet Life Cycle: Loading a Servlet, Initializing a Servlet, Handling Request, Destroying a Servlet; Servlet Life Cycle Methods: init(), service(), destroy() methods

UNIT II

Developing the First Servlet Application : creating the home.html page, creating LifecycleServlet, Creating the Deployment Descriptor, Deploying Web Application, Running the Lifecycle Application; Request Navigation, Request Delegation, GenericServlet Class: creating the Home.html Page, Developing the HelloServlet.java Servlet, Deploying and Running the Application

UNIT III

Understanding Request Processing and HTTP: Implementing the ServletRequest Interface: Managing the Servlet Object as a Throwaway Object, Managing the ServletRequest Object Pool, working with Request Parameters : creating the Login Form, creating the LoginServlet Servlet, creating the Deployment Descriptor File, running the Application; working with Initialization parameter: Exploring the need for Initializing Parameters, Retrieving Initializing Parameters, Handling Servlet Initializing Parameters : creating the Home.html file, creating the InitParamsServlet Servlet, creating the Deployment Descriptor File, running the application; working with Context Initialization Parameters : creating the Home.html file, creating the Login.html file, creating Register.html file, creating the RegistrationServlet

Servlet, creating the LoginServlet Servlet, creating the Deployment Descriptor File, running the application, Understanding ServletResponse.

UNIT IV

Understanding Request Dispatching: Navigation, Delegation, getting a RequestDispatcher Object; understanding the include() and forward() methods of Request Dispatcher, creating the home.html file, creating the TestServlets Servlet and TestServlet2 Servlet, creating the deployment descriptor file, running the application, working with Request Attributes, HTTP Status Codes, HttpServletRequest & HttpServletResponse Interfaces, the HttpServlet Lifecycle. Handling Sessions in Servlet: Introducing Session tracking, Exploring URL Rewriting, Exploring Hidden Form Field, working with URL Rewriting and Hidden Form Field, Describing cookies, using cookies, Exploring and working with Http session, Servlet Context Attributes, Scopes of the Web Application Objects, Exploring the Single Thread Model, the ServletOutputStream Class

UNIT V :

Implementing Filters, Listeners and Wrappers: Exploring Filters: Filter Interception Design pattern, Filter API: The Filter Interface, The FilterConfig Interface, The FilterChain Interface, Working with Filters: creating the Home.html page, creating the TestServlet.java File, creating the MyFilter1.java file, creating the MyFilter2.java file, configuring the Filters Application, Running the Application, Types of Listeners, Listener Interfaces, Need of Wrappers, types of Wrapper Classes: The ServletRequestWrapper Class, the ServletResponseWrapper Class, the HttpServletRequestWrapper Class, the HttpServletResponseWrapper Class, creating the home.html page, creating the TestServlet.java File, creating the MyRequestWrapper.java File, creating the MyResponseWrapper.java File, creating the MyWrapperFilter.java File, creating the Web.xml File, Deploying and Running the Application, Applet to Servlet Communication

III. References:

1. JDBC, Servlets and JSP (Includes JSF and Design patterns) Black Book by Santosh Kumar K
2. Java Server Programming Java EE6 Black Book, Kogent Learning Solutions
3. Murach's Java Servlets and JSP, 3rd Edition
4. Head First Servlet and JSP, O REILLY , by Bryan Basham, Kathy Sierrs & Bert Bates
5. Servlet & JSP: A Tutorial, Second Edition 2nd Edition by Budi Kurniawan
6. Web sources suggested by the teacher concerned and the college librarian including reading material.

IV. Co-Curricular Activities:

a) Mandatory: (Training of students by teacher in field related skills: (lab: 10 + field: 05) :

1. For Teacher: Field related training of students by the teacher in laboratory/field for not less than 15 hours on demonstrating various e-commerce websites available online, addressing the students on identifying the case study to build an e-commerce and database driven website, using Java Servlets.

2. For Student: Students shall (individually) search online and visit any of the agencies like malls, hotels, super bazaars, etc. where there is a need for an **e-commerce** and database driven website and build a e-commerce website using Java servlets. They have to submit a Field work/Project work Report not exceeding 10 pages. Example: Online food ordering system, E-health care system, movie booking system, etc.

3. Max marks for Fieldwork/Project work Report: 05.

4. Suggested Format for Fieldwork/Project work: Title page, student details, index page, details of place or websites visited, structure of the website, implementation details and acknowledgements.

5. Unit tests (IE).

b) Suggested Co-Curricular Activities

1. Arrange expert lectures by IT experts working professionally in the area of web content development

2. Assignments (in writing or implementing contents related to syllabus or outside the syllabus. Shall be individual and challenging)

3. Seminars, Group discussions, Quiz, Debates etc. (on related topics).

4. Preparation by students on best websites.

5. Arrange a webpage development competition among small groups of students.

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B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY

V SEMESTER - W.E.F. 2022-23

COURSE 6B: JAVA SERVLETS

MODEL QUESTION PAPER

Time: 3 hours

Marks: 75 marks

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer any five of the following questions in Part A. Part B consists of 5 Units. Answer one full question (A or B) from each unit (i.e., Q.No 9 from Unit – I, Q.No 10 from Unit – II, Q.No 11 from Unit – III, Q.No 12 from Unit – IV, Q.No 13 from Unit – V). Each question carries 10 marks.

PART – A

Answer any *Five* of the following question.

(5X5=25M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

(P.T.O)

PART – B

Answer All The Questions. Each question carries 10 marks (5X10= 50M)

9.	(A) OR (B)
10.	(A) OR (B)
11.	(A) OR (B)
12.	(A) OR (B)
13.	(A) OR (B)

COURSE 6B: JAVA SERVLETS -PRACTICAL SYLLABUS

V. Skill Outcomes: On successful completion of this practical course, the learner will be able to

1. Describe the concepts of WWW including browser and HTTP protocol
2. Create server side programs using Java Servlets.
3. Use Servlets to generate the web pages dynamically using the database connectivity.
4. Develop modern Web Applications using the client and server side technologies and the web design fundamentals

VI. Practical (Laboratory) Syllabus: (30 hrs)

1. Write a program to demonstrate Basic Servlet to display the date and time.?
2. Write a Servlet program to generate simple text?
3. Write a Servlet program to display cookie ID?
4. Write a Servlet program to handle user form?
5. Write a program To convert the static web pages into dynamic web pages using servlets and cookies?.
6. Write a program using Servlet to write persistent and non-persistent cookies on client side.?
7. Write a program to design the login form using servlet.?
8. Write a servlet program for customer registration.?
9. Develop sample application for session management using Servlet?
10. Develop sample application with database connectivity using Servlet?

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V SEMESTER
W.E.F.2022-23

COURSE 7B: JAVA SERVER PAGES (JSP)

(Skill Enhancement Course (Elective), Credits: 05)

Max Marks: 100 + 50

I. Learning Outcomes: On completion of the course, students will be able to:

1. Describe JSP life cycle and fundamentals of WWW
2. Demonstrate Java Server Pages and their relationship to servlets
3. Develop distributed web application using JSP.
4. Manage queries and updates in transaction contexts.
5. Create server side programs using Java Server Pages

II. Syllabus: *(Total Hours: 90 including Teaching, Lab, Field training, Unit tests etc.)*

UNIT I:

Introduction to JSP, Advantages of JSP over Servlets, JSP Architecture, JSP Life Cycle, creating simple JSP page. JSP Basic Tags and Implicit Objects: Scripting tags: the Scriptlet Tag, the Declarative Tag, the Expression Tag; Implicit Objects: the request object, the response object, the out object, the page object, the page context object, the application object, the session object, the config object, the exception object; Directive tags: the page directive tag, the include directive, the Taglib Directive.

UNIT II:

Working with JavaBeans and Action Tags in JSP: Advantages of using JavaBeans, Action tags: Include Tag, Forward Tag, Param Tag, useBean tag, the setProperty Tag (name, property, value, param), the getProperty Tag (name attribute, property attribute)

UNIT III:

Enhancing the JSP tags support: Custom tags, elements of custom tags: Tag Library Descriptor, Tag Handler, Tag Extension API, Empty Tags: Empty Tag Handler Life Cycle, Body Content Tag Interface:Body Tag Handler Life Cycle, Iteration Tag Handler Life Cycle, Life Cycle of Simple Tag Handlers, Difference between Simple tag and classic tag handlers, the TryCatchFinally Interface.

UNIT IV: Understanding JSP Expression Language: Basic Syntax of using EL, types of EL Expression: Immediate, Deferred, Value and Method Expressions, Tag Attribute Types, EL Expression: the EL Resolver Classes, EL Operators, Implicit EL Objects, Functions with EL.

UNIT V :

Working with JSP Standard Tag Library (JSTL): JSTL core tags, General Purpose Tags: The <c:out> tag, The <c:set> tag, The <c:remove> tag, The <c:catch> tag; Conditional and looping Tags, Networking Tags : The <c:import> Tag, The <c:url> Tag, The <c:redirect> Tag, The <c:param> Tag; JSTL SQL Tags: The <sql:query> Tag, The <sql:update> Tag, The <sql:param> Tag, The <sql:dataParam> Tag, The <sql:setDataSource> Tag, The

<sql:transaction> Tag; Basic Formatting Tags, Number Formatting Tags, Date Formatting Tags, Time Zone Formatting Tags; JSTL XML Tags: Core Tags, Flow Control Tags, Transformation Tags

III. Reference Books

1. JDBC, Servlets and JSP (Includes JSF and Design patterns) Black Book by Santosh Kumar K
2. Java Server Programming Java EE6 Black Book, Kogent Learning Solutions
3. JSP 2.0: The Complete Reference, Second Edition by Phillip Hanna
4. JavaServer Pages 3e, O REILLY by Hans Bergsten
5. Web Sources:
 - a. <https://www.javatpoint.com/jsp-tutorial>
 - b. <https://www.tutorialspoint.com/jsp/index.htm>
 - c. <https://www.baeldung.com/jsp>
 - d. <https://www.w3schools.in/jsp/tutorials/>
6. Web sources suggested by the teacher concerned and the college librarian including reading material.

IV. Co-Curricular Activities:

a) Mandatory: (Training of students by teacher in field related skills: (lab: 10 + field: 05) :

1. For Teacher: Field related training of students by the teacher in laboratory/field for not less than 15 hours on demonstrating various interactive and dynamic websites available online, addressing the students on identifying the case study to build an interactive and database driven website, forms to be used in website, database to be maintained, reports to be produced, etc.

2. **For Student:** Students shall (individually) search online and visit any of the agencies like malls, hotels, super bazaars, etc. where there is a need for an interactive and database driven website and create a website using JSP and submit a Fieldwork / Project work Report not exceeding 10 pages. Example: Choosing a firm or business to develop a website, identifying forms to be placed in the websites, back end databases to be maintained and reports to be generated and placed in the websites.

3. Max marks for Fieldwork/Project work Report: 05.

4. Suggested Format for Fieldwork/Project work: Title page, student details, index page, details of place or websites visited, structure of the website, implementation details and acknowledgements.

5. Unit tests (IE).

b) Suggested Co-Curricular Activities

1. Arrange expert lectures by IT experts working professionally in the area of web content development

2. Assignments (in writing or implementing contents related to syllabus or outside the syllabus. Shall be individual and challenging)

3. Seminars, Group discussions, Quiz, Debates etc. (on related topics). 4. Preparation by students on best websites.

5. Arrange a webpage development competition among small groups of students.

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B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY

V SEMESTER - W.E.F. 2022-23

COURSE 7B: JAVA SERVER PAGES (JSP)

MODEL QUESTION PAPER

Time: 3 hours

Marks: 75 marks

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer any five of the following questions in Part A. Part B consists of 5 Units. Answer one full question (A or B) from each unit (i.e., Q.No 9 from Unit – I, Q.No 10 from Unit – II, Q.No 11 from Unit – III, Q.No 12 from Unit – IV, Q.No 13 from Unit – V). Each question carries 10 marks.

PART – A

Answer any *Five* of the following question.

(5X5=25M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

(P.T.O)

PART – B

Answer All The Questions. Each question carries 10 marks (5X10= 50M)

9.	(A) OR (B)
10.	(A) OR (B)
11.	(A) OR (B)
12.	(A) OR (B)
13.	(A) OR (B)

Course 7B: JSP- PRACTICAL SYLLABUS

V. Skill Outcomes: On successful completion of this practical course, the student will be able to:

- 1.Acquire skills to design server side pages
- 2.Manipulate cookies using JSP pograms
- 3.Create Database connectivity using JSP and perform database operations

VI. Practical Syllabus(30Hrs):

- 1.Install the TOMCAT web server?
2. Write a program to demonstrate basic jsp example?
3. Write a JSP program that displays “Good Morning” or “Good Evening” based on the present time?
4. write a JSP page that display a randomly generated number in first visit to this page and repeat displaying this same number in subsequent visits?
5. Write a program for user registration in online book store using JSP?
6. Write a JSP program to authenticate user login?
7. Write a program for session management in JSP?
8. Write a JSP program to find the no of hits of a page?
9. Write a JSP program to create simple calculator?
10. Design and Implement JSP program to perform MySQL database operations such as select, update, delete?
11. Design and Implement JSP program for creating cookies of username and email, and add age to the cookie for 10 hours?