



C. U. SHAH UNIVERSITY – WADHWAN CITY

FACULTY OF TECHNOLOGY AND ENGINEERING DEPARTMENT OF INFORMATION TECHNOLOGY B. TECH. SEMESTER: - VI

Subject Name: Advanced Java Technology (AJT)

Subject Code: 4TE06AJT1

Teaching & Evaluation Scheme: -

Subject Code	Subject Name	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
		Th	Tu	Pr	Total		Theory				Practical (Marks)			Total
							Sessional Exam		University Exam		Internal		University	
							Marks	Hours	Marks	Hours	Pr/Viva	TW	Pr	
4TE06AJT1	Advanced Java Technology (AJT)	3	0	4	7	5	30	1.5	70	3.0	-	20	30	150

Objectives:

The objectives of the course are:

- To enable students to gain the knowledge of Java Swing, J2EE, JSP, Servlet, JDBC and Hibernate architectures.
- To enable students to develop real-time applications using java.
- To prepare the students to fulfill the industry needs.

Prerequisites:

- Basics concepts of JAVA Language and Web Technology

Course outline:

Sr. No.	Course Contents	Total Hrs.
1	Java Swing and MVC: Introduction to Event Handling, Swing, Features of Swing, MVC Architecture, Basic swing components, Containers, Components, JFrame, JApplet, JPanel, LayoutManager, TextFields, Buttons, Toggle Buttons, Checkboxes, and Radio Buttons, Option Pane, Menu, MenuBar	8

2	Database Programming: Java database Programming, java.sql Package, JDBC driver types.	6
3	Network Programming: Network programming with java.net Package, Client programs and Server programs, Content and Protocol Handlers.	4
4	RMI Programming: RMI Architecture, RMI Registry, Writing distributed application with RMI, Naming services, Naming And Directory Services, Overview of JNDI, Object Serialization and Internationalization.	6
5	J2EE: J2EE Architecture, Enterprise application concepts, N-tier application concepts, J2EE platform, HTTP protocol, Web application, Web containers and Application servers.	4
6	Server side Programming: Server side programming with Java Servlet, HTTP and Servlet, Servlet API, Servlet Life Cycle, Configuration and Context, Request and Response Objects, Session handling and event handling, Introduction to filters with writing simple filter application.	8
7	Java Server Pages and JSTL: JSP Architecture, JSP Page Life Cycle, JSP Elements, JSP Fragments, JSTL, Core Tag Library, Overview of XML Tag Library, SQL Tag Library and Functions Tag Library.	8
8	Hibernate: Introduction to Hibernate, Hibernate Architecture, O/R Mapping in Hibernate.	4
	Total	48

Learning Outcomes:

At the end of this module the student will be:

- Able to make GUI applications using java.
- Able to make Network/Internet based Web application.
- Able to create MVC based applications.

Books Recommended:

1. Java 6 Programming - Black Book, **Kogent**, Dreamtech Publications.
2. Java Server Programming - Java EE6 - Black Book, **Kogent**, Dreamtech Publications.
3. Java Programming Advance Topics, **Joe Wigglesworth, Paula McMillan and Dr. K. H. Wandra**, Cengage Learnings (2011).
4. The Complete Reference J2EE, **Keogh**, McGrawHill
5. Java Servlet Programming, **Jason Hunter**, SPD (O'Reilly)