

Devi Ahilya University, Indore, India Institute of Engineering & Technology				III Year B.E. (Computer Engg.) (Full Time)			
Subject Code & Name	Instructions Hours per Week			Credits			
CER5P1 Server Side Programming	L	T	P	L	T	P	Total
Duration of Theory Paper: 3 Hours	3	1	2	3	1	1	5

Learning Objectives: To learn web development using server side programming technologies and to develop skills for building web application with dynamic contents.

Pre requisites: Knowledge of Java Programming language (core), HTML, XML and basics of SQL.

COURSE CONTENTS

UNIT-I

Introduction: Introduction to HTML, HTML tags, HTML forms. HTTP protocol: HTTP request, HTTP response. Introduction to CGI, PHP, ASP and compare these server side technologies with Servlets and JSP. Web Server; web Container, overview of web application.

UNIT-II

Servlets: Basics of Web, MVC in Server side Programming, Servlet API, Servlet Interface, GenericServlet, HttpServlet, Servlet Life Cycle, Working with Apache Tomcat Server, Steps to create a servlet in Tomcat, Deployment descriptor. ServletRequest: Various Servlet Request methods for form data and HTTP header data.

UNIT-III

Session Tracking: Purpose and need of Session Tracing. Approaches to session tracking: Cookies, Hidden Form Field, URL Rewriting, Session tracking with JAVA servlet API.

UNIT-IV

Database Connectivity and Servlet Collaboration: Database drivers, JDBC, API for Querying with database, API for updating the database. Servlet collaboration: Methods of Request Dispatcher interface: forward, Include. Sendredirect.

UNIT-V

Java Server Pages: Basic of JSP: Life Cycle of JSP, JSP API. Scripting Elements: - Scriplet Tag, expression tag, declaration tag. 9 Implicit Object: out, request, response, config, application, session, pagecontext, page and Exception. Directives: - page directive, include directive, taglib; Exception Handling, Action Elements, JSTL, Custom tags.

Learning Outcomes: To learn Server Side Programming concepts and its design and implementation issues.

BOOKS RECOMMENDED:

- [1] J2EE Tutorial from <https://developer.oracle.com/technology/Java>
- [2] Jason Hunter JAVA servlet programming, , William Crawford, O'Reilly, SPD.
- [3] Professional JAVA server programming, J2EE edition, volume I, Wrox, SPD.