

Advanced Java

B.Sc. (IT) Sem. V

EVALUATION SYSTEM

	Time	Marks
Theory Exam	3 Hrs.	100
TW / Tutorial	–	50

SYLLABUS

1. **Swing** : Event Handling, JFrames, Lists, Tables, Trees, Text Components, Progress Indicators, Component Organizers.

2. **Introduction to servlets**: Need for dynamic content, Java servlet technology, why servlets?

Servlet API and Lifecycle: Servlet API, servletConfig interface, ServletRequest and ServletResponse Interfaces, GenericServlet Class.

ServletInputStream And ServletOutputStream Classes, RequestDispatcher Interface, HttpServlet Class, HttpServletRequest and HttpServletResponse Interfaces, HttpSession Interface, Servlet Lifecycle.

Working with servlets : organization of a web application, creating a web application (using netbeans) , creating a servlet, compiling and building the web application.

3. **JDBC** : Design of JDBC, JDBC configuration, Executing SQL statement, Query Execution, Scrollable and updatable result sets, row sets, metadata, Transaction.

JSP : Introduction, disadvantages, JSP v/s Servlets, Lifecycle of JSP, Comments, JSP documents, JSP elements, Action elements, implicit objects, scope, characterquoting conventions, unified expression language.

4. **Java server Faces** :

Need of MVC , what is JSF?, components of JSF, JSF as an application, JSF lifecycle, JSF configuration, JSF web applications (login form, JSF pages)

EJB : Enterprise bean architecture, Benefits of enterprise bean, type of beans, Accessing beans, packaging beans, creating web applications creating enterprise bean, creating web client, creating JSP file, building and running web application.

5. **HIBERNATE**

Introduction, Writing the application, application development approach, creating database and tables in MySQL, creating a web application, Adding the required library files, creating a Java bean class, creating hibernate configuration and mapping file, adding a mapping resource, creating JSPs.

STRUTS

Introduction, Struts framework core components, installing and setting up struts, getting started with struts.

6. **WEB Services** : SOAP, Building a web services using JAX-WS, Building web service.

JAVAMAIL : Mail Protocols, Components of the Javamail API, JAVAMAIL API, Starting with API.

JNDI : NAMING Service, Directory service, JNDI, Resources and JNDI.

Reference :

1. Java EE 6 for Beginners, (*Sharanam Shah, Vaishali Shah*), SPD
2. Core Java Vol. II – Advanced Features, (*Cay S. Horstmanns, Gary Coronell*), Eight Edition, Person
3. Java Completer Reference, (*Herbert Schildt*), Seventh Edition, TMH.
4. Java EE Project using EJB3, JPA and struts 2 for beginners, (*Shah*), SPD
5. Java Programming A practical Approach, (*C Xavier*), McGraw Hill.
6. Java Server Faces A practical Approach for beginners, (*B M Harwani*), Eastern Economy Edition (PHI)