

Advanced Java Programming			
		<b>L</b>	<b>P</b>
		<b>3</b>	<b>3</b>

Discipline(s) / EAE / OAE	Semester	Group	Sub-group	Paper Code
CSE/IT/CST/ITE	6	PCE	PCE-1	CIE-306T
EAE	6	FSD-EAE	FSD-EAE-1	FSD-318T
CSE-in-EA	7	OAE-CSE-EA	OAE-2	OSD-453T
OAE	7	SD-OAE	SD-OAE-5A	OSD-453T

**Marking Scheme:**

- Teachers Continuous Evaluation: 25 marks
- Term end Theory Examinations: 75 marks

**Instructions for paper setter:**

- There should be 9 questions in the term end examinations question paper.
- The first (1st) question should be compulsory and cover the entire syllabus. This question should be objective, single line answers or short answer type question of total 15 marks.
- Apart from question 1 which is compulsory, rest of the paper shall consist of 4 units as per the syllabus. Every unit shall have two questions covering the corresponding unit of the syllabus. However, the student shall be asked to attempt only one of the two questions in the unit. Individual questions may contain upto 5 sub-parts / sub-questions. Each Unit shall have a marks weightage of 15.
- The questions are to be framed keeping in view the learning outcomes of the course / paper. The standard / level of the questions to be asked should be at the level of the prescribed textbook.
- The requirement of (scientific) calculators / log-tables / data – tables may be specified if required.

**Course Objectives :**

- To learn the ability to design console based, GUI based and web based applications
- To learn how to create dynamic web pages, using Servlets and JSP.
- To learn Designing applications using pre-built framework.
- To learn how to do distributed programming in Java using RMI, CORBA.

**Course Outcomes (CO)**

**CO 1** Able to Understand advanced programming concepts.

**CO 2** Able to Develop server side programs using JSP and Servlets

**CO 3** Able to Develop component-based java software using java beans.

**CO 4** Able to develop advanced projects based on java.

**Course Outcomes (CO) to Programme Outcomes (PO) mapping (scale 1: low, 2: Medium, 3: High)**

	PO01	PO02	PO03	PO04	PO05	PO06	PO07	PO08	PO09	PO10	PO11	PO12
<b>CO 1</b>	3	2	2	3	2	-	-	-	3	2	2	3
<b>CO 2</b>	3	2	2	3	2	-	-	-	3	2	2	3
<b>CO 3</b>	3	2	2	3	2	-	-	-	3	2	2	3
<b>CO 4</b>	3	2	2	3	2	-	-	-	3	2	2	3

**UNIT-I**

Introduction to Java, Inheritance, Exception Handling, Multithreading, Applet Programming. Connecting to a Server, Implementing Servers, Making URL Connections, Socket Programming.

**UNIT-II**

Preparing a Class to be a Java Bean, Creating a Java Bean, Java Bean Properties, Types of beans, Stateful Session bean, Stateless Session bean, Entity bean Servlet Overview and Architecture, Interface Servlet and the Servlet Life Cycle, Handling, HTTP GET Requests, Handling HTTP POST Requests, Session Tracking, Cookies.

**UNIT-III**

**JSP-** Introduction, Java Server Pages Overview, Implicit Objects, Scripting, Standard Actions, Directives, Custom Tag Libraries.

**UNIT- IV**

The Roles of Client and Server, Remote Method Invocations, Setup for Remote Method Invocation, Parameter Passing in Remote Methods, Introduction of HB, HB Architecture.

**Textbook(s):**

1. Kathy Sierra, Head First Servlets and JSP, O'Reilly Media.
2. Kanika Lakhani, Advance Java Programming, S.K. Kataria & Sons

**References:**

1. Brett Spell, Professional Java Programming, WROX Publication.
2. Harvey. M. Dietal, Advanced Java 2 Platform, How to Program, Prentice Hall.
3. Gajendra Gupta, Advanced Java, Firewall Media.

**Lesson Plan**  
**(Advanced Java Programming)**

**Paper Code: CIE-306T**

**L      P      C**

**Paper: AJP**

**3                      3**

<b>Topics to be covered</b>		
<b>S. No.</b>	<b>Contents</b>	<b>Total Lectures</b>
1	Introduction to Java	1
2	Inheritance, Exception Handling, Multithreading, Applet Programming	2
3	Connecting to a Server, Implementing Servers	3
4	Making URL Connections, Socket Programming	2
5	Preparing a Class to be a Java Bean, Creating a Java Bean	2
6	Java Bean Properties, Types of beans	2
7	Stateful Session bean, Stateless Session bean, Entity bean Servlet Overview and Architecture	3
8	Interface Servlet and the Servlet Life Cycle	2
10	Handling, HTTP GET Requests, Handling HTTP POST Requests	2
11	Session Tracking, Cookies.	2
12	JSP- Introduction, Java Server Pages Overview	2

14	Implicit Objects, Scripting	2
15	Standard Actions, Directives	2
16	Custom Tag Libraries.	2
17	The Roles of Client and Server	1
18	Remote Method Invocations, Setup for Remote Method Invocation	2
19	Parameter Passing in Remote Methods,	2
20	Introduction of HB, HB Architecture	2
Total		36