PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY PANIPAT
DEPARTMENT OF INFORMATION TECHNOLOGY

LESSON PLAN

Name: - Sandeep Goel　　　　　　　**Subject Name: - Java Programing**

Branch/Semester: -5th Sem.　　　　　　**Subject Code: - ES-301A**

Sr. No.	Lecture No.	Topics To Be Covered
1.	L 1	**Unit-1: Introduction to Java & Principles of Object Oriented Programming:** Basic Concepts of OOP and its Benefits, Application of OOP. The Creation of Java, Importance of Java for the Internet.
2.	L 2	Java's Magic: The Byte-code, Features of Java. Object-Oriented Programming in Java, Java Program Structure, **Defining Classes:** Defining of a Class, Definition of Methods
3.	L 3	Constructors, Creating Objects of a Class, Assigning ObjectReference Variables, The keyword "this", Defining and Using a Class, Automatic Garbage Collection
4.	L 4	**Arrays and Strings**: Arrays, Arrays of Characters, String handling Using String Class, Operations on String Handling Using String Buffer Class.
5.	L 5	**Extending Class and Inheritance:** Using Existing Classes, Class Inheritance, Choosing Base Class, Access Attributes,Polymorphism, Multiple Levels of Inheritance, Abstraction through Abstract Classes, Using Final Modifier, The Universal Super class-Object Class.
6.	L 6	**Unit-2:Package & Interfaces**: Understanding Packages, Defining a Package, Packaging up your Classes, Adding Classes from aPackage to your Program,
7.	L 7	Understanding CLASSPATH, Standard Packages, Access Protection in Packages, Concept of Interface.
8.	L 8	**Exception Handling:** The Idea behind Exceptions, Types of Exceptions, Dealing with Exceptions, Exception Objects, Defining Your Own Exceptions, Checked and Unchecked Exceptions.
9.	L 9	**Multithreading Programming:** The Java Thread Model, Understanding Threads, The Main Thread, Creating a Thread:extending Thread and implementing Runnable,
10.	L 10	Creating Multiple Threads, Thread Priorities, Synchronization, Deadlocks inter-thread communication, Deadlocks.

11.	L 11	**Input/Output in Java:** I/O Basic, Byte and Character Structure, I/O Classes, Reading Console Input.
12.	L 12	Writing to ConsoleOutput, Reading and Writing on Files, Random Access Files.
13.	L 13	Storing and Retrieving Objects from File. Stream Benefits.
14.	L 14	**Working with Windows:** AWT Classes, Window Fundamentals.
15.	L 15	Working with Frame, Creating a Frame.
16.	L 16	Window in anApplet, displaying information within a Window.
17.	L 17	**Unit-3**: **Creating Applets in Java:** Applet Basics, Applets Architecture, Applet Life Cycle.
18.	L 18	Simple Applet Display Methods,Requesting Repainting.
19.	L 19	Using the Status Window, The HTML APPLET Tag, Passing parameters to Applets
20.	L 20	**Java Data Base Connectivity (JDBC):** Database Connectivity, Relation Databases.
21.	L 21	JDBC API, Reusing DatabaseObjects, Transactions, Advance Techniques.
22.	L 22	**Unit-4**: **Event Handling:** Two Event Handling Mechanisms.
23.	L 23	The Delegation Event Model.
24.	L 24	The Event Handling process, EventClasses.
25.	L 25	Sources of Events, event Listener Interfaces.
26.	L 26	Using the Delegation Event Model, Adapter Classes.
27.	L 27	**Java Servlet Programming:** Role and Advantages of Java.
28.	L 28	Servlets in Web application Development.
29.	L 29	HTTP Servlets- Introduction, page generation, Server side includes, servlet chaining, java Server pages.
30.	L 30	**Server Life Cycle**: Servlet Alternative, Reloading, Init and Destroy.
31.	L 31	Single Thread Model, Background Processing, LastModified times, synchronization, Persistent state capabilities.

Mr.Sandeep Goyal
COURSE INCHARGE)