## **LESSON PLAN**

Discipline: Computer Science & Engg.	Semester: Third(3 <sup>rd</sup> )	Name of the Faculty: Er Biswajit Moharana
Subject: Object Oriented Methodology (Th- 04)	No. of days/week class allotted: Five (5)	Semester from Date: 15.09.22 to Date: 22.12.22 No. of Weeks: 15
WEEK	CLASS DAY	THEORY TOPICS
	st 1	Programming Languages Object Oriented Programming
	2 <sup>nd</sup>	OOPS concepts and terminology
st 1	3 <sup>rd</sup>	Benefit of OOPS
	4 <sup>th</sup>	Application of OOPS
	5 <sup>th</sup>	Review Class
2 <sup>nd</sup>	1 <sup>st</sup>	What is Java ? Execution Model of Java
	2 <sup>nd</sup>	The Java Virtual Machine A First Java Program
	3 <sup>rd</sup>	Variables and Data types
	4 <sup>th</sup>	Primitive Data types & Declarations
	5 <sup>th</sup>	Numeric and Character Literals, String Literals
3 <sup>rd</sup>	1 <sup>st</sup>	Arrays, Non-Primitive Data types Casting and Type Casting
	$2^{\text{nd}}$	Widening and Narrowing Conversions
	3 <sup>rd</sup>	Operators and Expressions
	4 <sup>th</sup>	Control Flow Statements
	5 <sup>th</sup>	Review Class

4 <sup>th</sup>	1 <sup>st</sup>	Monthly Test
	2 <sup>nd</sup>	Concept and Syntax of class Defining a Class
	3 <sup>rd</sup>	Concept and Syntax of Methods Defining Methods
	4 <sup>th</sup>	Creating an Object
	5 <sup>th</sup>	Accessing Class Members
5 <sup>th</sup>	1 <sup>st</sup>	Instance Data and Class Data
	2 <sup>nd</sup>	Constructors
	3 <sup>rd</sup>	Access specifiers Access Modifiers
	4 <sup>th</sup>	Access Control
	5 <sup>th</sup>	Review Class
6 <sup>th</sup>	st 1	String Builder String Buffer
	2 nd	Methods and Messages
	3 <sup>rd</sup>	Parameter Passing
	4 <sup>th</sup>	Contd
	5 <sup>th</sup>	Comparing and Identifying Objects
$7^{ m th}$	1 <sup>st</sup>	Review Class
	nd 2	Inheritance in Java Use of Inheritance
	3 <sup>rd</sup>	Types of Inheritance Single Inheritance
	4 <sup>th</sup>	Monthly Test
	5 <sup>th</sup>	Multi-level Inheritance
8 <sup>th</sup>	st 1	Hierarchical Inheritance

	2 nd	Hybrid Inheritance
	3 rd	Contd
	4 <sup>th</sup>	Review Class
	5 <sup>th</sup>	Types of Polymorphism
	st 1	Method Overloading
9 <sup>th</sup>	2 <sup>nd</sup>	Contd
	3 <sup>rd</sup>	Run time Polymorphism
	4 <sup>th</sup>	Method Overriding
	5 <sup>th</sup>	Contd
$10^{ m th}$	st 1	Review Class
	2 nd	Monthly Test
	3 <sup>rd</sup>	Introduction Java API Packages
	4 <sup>th</sup>	Using System Packages
	5 <sup>th</sup>	Naming Convention Creating Packages
11 <sup>th</sup>	st 1	Accessing a Package
	2 <sup>nd</sup>	Using a Package
	3 <sup>rd</sup>	Adding a Class to Package
	4 <sup>th</sup>	Hiding Classes Static Import
	5 <sup>th</sup>	Review Class
12 <sup>th</sup>	st 1	What is a stream? Reading and writing to files (only txt files
	2 <sup>nd</sup>	Input and Output Stream

	3 <sup>rd</sup>	Manipulating Input data
	4 <sup>th</sup>	Opening and Closing Streams
	5 <sup>th</sup>	Predefined streams
13 <sup>th</sup>	st 1	File handling Classes and Methods
	2 <sup>nd</sup>	Review Class
	3 <sup>rd</sup>	Exceptions Overview Exception Keywords
	4 <sup>th</sup>	Catching Exceptions
	5 <sup>th</sup>	Using Finally Statement
14 <sup>th</sup>	1 <sup>st</sup>	Exception Methods
	2 <sup>nd</sup>	Declaring Exceptions
	3 <sup>rd</sup>	Defining and throwing exceptions Errors and Runtime Exceptions
	4 <sup>th</sup>	Review Class
	5 <sup>th</sup>	Monthly Test
15 <sup>th</sup>	st 1	Revision-1
	2 <sup>nd</sup>	Revision-2
	3 <sup>rd</sup>	Revision-3
	4 <sup>th</sup>	Revision-4
	5 <sup>th</sup>	Revision-5