**LESSON PLAN**

|  |  |  |
| --- | --- | --- |
| **Discipline:** Computer Science & Engg. | **Semester:**  Third(3rd ) | **Name of the Faculty:**  Er Biswajit Moharana |
| **Subject:**  Object Oriented Methodology (Th- 04) | **No. of days/week class allotted:**  Five (5) | **Semester from Date: 0**1.07.24 **to Date: 08**.11.24  **No. of Weeks:** 15 |
| **WEEK** | **CLASS DAY** | **THEORY TOPICS** |
| 1st | 1st | Programming Languages  Object Oriented Programming |
| 2nd | OOPS concepts and terminology |
| 3rd | Benefit of OOPS |
| 4th | Application of OOPS |
| 5th | Review Class |
| 2nd | 1st | What is Java ?  Execution Model of Java |
| 2nd | The Java Virtual Machine  A First Java Program |
| 3rd | Variables and Data types |
| 4th | Primitive Data types & Declarations |
| 5th | Numeric and Character Literals,  String Literals |
| 3rd | 1st | Arrays, Non-Primitive Data types  Casting and Type Casting |
| 2nd | Widening and Narrowing Conversions |
| 3rd | Operators and Expressions |
| 4th | Control Flow Statements |
| 5th | **Monthly Test-01** |
| 4th | 1st | Review Class |
| 2nd | Concept and Syntax of class  Defining a Class |
| 3rd | Concept and Syntax of Methods  Defining Methods |
| 4th | Creating an Object |
| 5th | Accessing Class Members |
| 5th | 1st | Instance Data and Class Data |
| 2nd | Constructors |
| 3rd | Access specifiers  Access Modifiers |
| 4th | Access Control |
| 5th | Review Class |
| 6th | 1st | String Builder String Buffer |
| 2nd | Methods and Messages |
| 3rd | Parameter Passing |
| 4th | Contd.. |
| **5th** | **Monthly Test-02** |
| 7th | 1st | Comparing and Identifying Objects |
| 2nd | Review Class |
| 3rd | Inheritance in Java  Use of Inheritance |
| 4th | Types of Inheritance  Single Inheritance |
| 5th | Multi-level Inheritance |
| 8th | 1st | Hierarchical Inheritance |
| 2nd | Hybrid Inheritance |
| 3rd | Contd.. |
| 4th | Review Class |
| 5th | Types of Polymorphism |
| 9th | 1st | Method Overloading |
| 2nd | Contd.. |
| 3rd | Run time Polymorphism |
| 4th | Method Overriding |
| 5th | **Monthly Test-03** |
| 10th | 1st | Contd.. |
| 2nd | Review Class |
| 3rd | Introduction  Java API Packages |
| 4th | Using System Packages |
| 5th | Naming Convention  Creating Packages |
| 11th | 1st | Accessing a Package |
| 2nd | Using a Package |
| 3rd | Adding a Class to Package |
| 4th | **Monthly Test-0-4** |
| 5th | Hiding Classes  Static Import |
| 12th | 1st | Review Class |
| 2nd | What is a stream?  Reading and writing to files (only txt files) |
| 3rd | Input and Output Stream |
| 4th | Manipulating Input data |
| 5th | Opening and Closing Streams |
| 13th | 1st | Predefined streams |
| 2nd | File handling Classes and Methods |
| 3rd | Review Class |
| 4th | Exceptions Overview  Exception Keywords |
| 5th | Catching Exceptions |
| 14th | 1st | Using Finally Statement |
| 2nd | Exception Methods |
| 3rd | Declaring Exceptions |
| 4th | Defining and throwing exceptions  Errors and Runtime Exceptions |
| 5th | Review Class |
| 15th | 1st | Previous year question answer discussion W-2021 |
| 2nd | Previous year question answer discussion W-2022 |
| 3rd | Previous year question answer discussion W-2022 |
| 4th | Previous year question answer discussion W-2023 |
| 5th | Previous year question answer discussion W-2023 |