**LESSON PLAN**

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| **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 LanguagesObject 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 MachineA 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 typesCasting 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 classDefining a Class |
| 3rd  | Concept and Syntax of MethodsDefining Methods |
| 4th | Creating an Object |
| 5th | Accessing Class Members |
| 5th | 1st  | Instance Data and Class Data |
| 2nd  | Constructors |
| 3rd  | Access specifiersAccess 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 JavaUse 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  | IntroductionJava API Packages |
| 4th | Using System Packages |
| 5th | Naming ConventionCreating Packages |
| 11th  | 1st  | Accessing a Package |
| 2nd  | Using a Package |
| 3rd  | Adding a Class to Package |
| 4th | **Monthly Test-0-4** |
| 5th | Hiding ClassesStatic 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 OverviewException 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 |