**Subject Code: CACS 204**                     **Year**          **II**

**Subject: Object Oriented Programming in Java**          **Sem**          **III**


**Name**  _____


| Lab | Lab Exercise | Date | Sign |
|---|---|---|---|
| **1** | **Command Line Arguments** | | |
| 1.1 | Checking the version of Java | | |
| 1.2 | Compiling and Running Program | | |
| **2** | **Basic Programming** | | |
| 2.1 | Data Type | | |
| 2.2 | Operators | | |
| 2.3 | Control Statement | | |
| 2.4 | Looping | | |
| 2.5 | Jumping | | |
| **3** | **OOP Basics** | | |
| 3.1 | Class creation and object Declaration | | |
| 3.2 | Adding Methods - All Types ( void , datatype , consuming parameters) | | |
| 3.3 | Constructors | | |
| 3.4 | Method Overloading | | |
| 3.5 | Recursion | | |
| **4** | **Inheritance** | | |
| 4.1 | Types of Inheritance - (Single Level , Multilevel ) | | |
| 4.2 | Multiple Inheritance using Interface | | |
| 4.3 | Use of Super Keyword | | |
| 4.4 | Method Overriding | | |
| 4.5 | Abstract Class | | |
| 4.6 | Final Class | | |
| 4.7 | Packaging | | |
| **5** | **Exception Handling** | | |
| 5.1 | Using Try/Catch Block with finally | | |
| 5.2 | Throw and Throws Demonstration | | |
| 5.3 | UserDefined Exception | | |
| 5.4 | Catching Multiple Exception | | |
| **6** | **Strings and String Buffer** | | |
| 6.1 | Creation of strings in various ways | | |
| 6.2 | Concatenation and Conversion | | |
| 6.3 | Changing Case - Convert the string to different cases | | |
| 6.4 | Character Extraction - Extract from specific postion of String | | |
| 6.5 | String Comparisons - Various Methods | | |
| 6.6 | Search and Modify Strings | | |

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|---|---|---|---|
| 6.7 | String Buffer - Using String Buffer methods | | |
| **7** | **Threads** | | |
| 7.1 | Creating Threads (Extending and Implementing) | | |
| 7.2 | Thread Execution and Priorities | | |
| **8** | **I/O Streams** | | |
| 8.1 | Reading and Writing Console | | |
| 8.2 | Reading and Writing File | | |
| 8.3 | Serialization | | |
| **9** | **Core packages** | | |
| 9.1 | Using java.lang Package | | |
| 9.2 | Wrapper Class | | |
| 9.3 | Using java.util package | | |
| 9.4 | Random Number Generation | | |
| **10** | **Holding Collection** | | |
| 10.1 | Map / List / Set | | |
| 10.2 | Array List / Linked List | | |
| 10.3 | Hash Set / Tree Set | | |
| 10.4 | Use of Iterator and Comparator | | |
| **11** | **Java Application** | | |
| 11.1 | Create a GUI form using AWT | | |
| 11.2 | Create a GUI form using SWING | | |
| 11.3 | Layout - All | | |
| 11.4 | Key and Mouse Event Handling | | |
| 11.5 | Menus in Swing | | |
| 11.6 | Dialog Boxes | | |
| 11.7 | JTable | | |
| | | | |
| **12** | **Applet Program** | | |
| **13** | **JDBC** | | |
| 13.1 | Creating , Testing and Closing The Connection | | |
| 13.2 | CRUD Application | | |